Occidental Medical Times.

VOL. IX. JUNE, 1895. No. 6.

THE NEPHRITIS AND ECLAMPSIA OF PREGNANCY AND PARTURITION.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

A few preliminary facts may help us to a clearer appreciation of the nature and causation of the nephritis and eclampsia of pregnancy and parturition.

1. The symptoms of puerperal eclampsia are identical with those of renal convulsions.

2. With few exceptions, there exist, in eclampsia, the clinical evidences of nephritis.

3. In the vast majority of fatal cases, autopsy reveals the lesions of nephritis.

4. Preëxisting nephritis in primiparæ after forty, invariably results in death, unless pregnancy be interrupted.

5. In rare cases eclampsia occurs without either *ante-mortem* or *post-mortem* evidence of nephritis. In some of these cases, renal insufficiency has been demonstrated; in others, it is rendered extremely probable, either by analogy or by the testimony in evidence.

6. The causes of nephritis, whether acute or chronic, as far as determined, are the toxins of various diseases, such as scarlatina, typhoid fever, measles, diphtheria, small-pox, chicken-pox, cholera, yellow fever, meningitis, and dysentery; various chemical poisons, such as turpentine, cantharides, chlorate of potash, carbolic acid and alcohol; and certain extensive lesions of the skin, in which the kidneys probably undertake the vicarious elimination of poisons that, in the normal condition, are excreted by the cutaneous surface.

7. In eclampsia, and in advanced nephritis, the urotoxic coefficient is markedly diminished.

8. In both of these conditions, the toxicity of the blood-serum is markedly increased.

In the present state of our knowledge, then, the conclusion would seem to be irresistible—that eclampsia is due to the same causes as are the convulsions of renal origin—that is to renal insufficiency.

Various other theories of the pathogeny of eclampsia have been propounded—for instance that of cerebral edema; of uremia; of ammoniemia; of extractive matters, and of potassium salts. The theory of Traube-Rosenstein is, however, invalidated by the pathologist. Not only is cerebral edema wanting in the great majority of cases, but the brain, instead of being anemic, is congested, and even ecchymotic. Uremic accidents occur, moreover, when we might infer an anhydremic, rather than an hydremic condition—when, for instance, the patient is eliminating water in excess. Then, too, of the thousands who annually frequent mineral springs and ingest enormous quantities of water for weeks, and even months, together, not one becomes eclamptic; not one becomes edematous. And yet, undoubtedly, they all become hydremic and, for a variable, but considerable time, remain hydremic.

It may be said that hydremia is prevented by polyuria, but not so, for it is hydremia that produces the polyuria; it is the increased fullness of the blood-vessels, the increased tension, that produces the increased excretion. Lastly, the therapeutic argument should have its weight. Jaccoud has demonstrated the value of a milk diet in the prevention not only of the nephritis, but also of the eclampsia of pregnancy, and to my own satisfaction I have demonstrated the great, if not equal efficiency of copious ingestion of plain or mineral water, not only in the prevention, but also in the cure of eclampsia and of the condition on which it depends.

The theory of uremia is likewise untenable. Urea is certainly toxic, but not sufficiently so to produce so-called uremic accidents within the period in which they usually arise after total occlusion of the ureters, or after double nephrectomy. Bouchard has shown that, to kill a man with urea, would require the quantity produced in the system during a period of sixteen days, while uremic accidents supervene the latter part of the second day, or the beginning of the third day after double calculous obstruction of the ureters. As an exclusive theory, therefore, uremia must be abandoned.

As an exclusive theory, ammoniemia is equally indefensible. Like urea and potash, ammonia is undeniably poisonous, but even in the normal state, it exists in the urine occasionally, and also in the expired air in a great variety of abnormal as well as normal conditions. As Feltz and Ritter have shown, urea injected into the blood, is wholly eliminated within twenty-four hours, and without any increase of the urinary ammonia.

The assumption by Frerichs, of a special ferment for the transformation of urea into carbonate of ammonia, and the assumption by

Bernard of the exosmosis of urea into the digestive tract; its conversion there into the carbonate of ammonia and its subsequent absorption, are unsupported by any evidence whatever. A series of investigations conducted Spiegelberg to the conclusion that "ammoniemia is to be regarded as one of the rarest causes of convulsions."

Various urinary extractives have been incriminated, but as exclusive theories, they likewise, are insufficient. Not one of these extractives, not all of them together, indeed, suffice to produce uremic accidents within the necessary period.

Finally, the retention of mineral substances, particularly of potash salts, has been pronounced the sole cause of the symptoms of uremia. Here also, as in the case of the urinary extractives, the theory fails because of it narrowness. The potash salts are toxic, it is true, but they are not sufficiently so to produce the phenomena of uremia within the necessary period. Potash kills by convulsions and paralysis of the heart. It would seem to play an important part in the development of eclampsia, but it is incapable of producing the totality of symptoms known as uremia.

These partial theories, each and everyone are either inapplicable or inadequate, and it remained for Bouchard to combine the truth of all of them into a more complete and more comprehensive theory than had previously been formulated. He regards uremia "as a complex condition, to which, in unequal proportion, all of the poisons introduced normally into the organism or found therein physiologically, contribute, when the quantity of poison formed or introduced in twenty-four hours can no longer be eliminated in the same time by the kidneys." These poisons, in part, are introduced with the food; in part are produced in the digestive organs by fermentation and putrefaction; in part are formed in the tissues themselves by the physiological processes of catabolism or disassimilation; in part, no doubt, are developed by various pathological processes like those of rheumatism and of the different infectious diseases.

This theory of Bouchard's need not be accepted as definitive, for while at present, the most complete, and in its details the most nearly correct, it is still open to minor objections. While Bouchard and others have determined the toxicity of several, if not all, of the elements that are concerned in the production of uremia, they have not yet determined, as far as I am aware, that each preserves its relative toxicity in combination with the other elements. Poisons in their joint action may be variant, concurrent or antagonistic, and in what degree the different poisons of uremia act in any or all of these ways is, as yet, undetermined. The sum of individual toxic coefficients seldom, perhaps never, represents the real toxic coefficient of any combination. Strychnine and chloral, opium and belladonna, for instance, when administered jointly, mutually diminish each others' toxic coefficient, and on the other hand, opium and chloral mutually increase it. Something, then, and perhaps considerable, remains to be worked out in this direction, but, meanwhile, the theory of Bouchard may be accepted as a safe, and fairly accurate, working hypothesis.

The pathogeny of renal insufficiency may be considered from two aspects—that of the kidneys, diminished elimination, and that of the rest of the organism, increased production, of toxic substances. Confining our attention to the condition of pregnancy, we shall discover, I think, not unimportant links in the chain of causation of puerperal eclampsia.

Among the earliest symptoms of pregnancy are various reflex disturbances of the digestive organs—anorexia, nausea, vomiting, indigestion, constipation. In extreme cases, foods are absolutely refused or, if taken, are immediately rejected, and the life of the mother is saved only by sacrificing that of the fetus. In other cases, less acute, foods are rejected in part and partly retained, only to decompose either in the stomach or the intestines—irritating the former with acids and distending the latter with gas. Even in the milder cases, the evidences of gastric and intestinal indigestion are unmistakable. In the subsequent course of pregnancy, to this perversion of nervous influences, is added the mechanical interference of the enlarging uterus with the normal peristalsis, first of the intestines and later of the stomach.

As results of this nervous and mechanical disturbance important conditions supervene—impaired digestion, decomposition, and putrefaction of the ingesta and their undue retention in the digestive tract. The products of putrefaction irritate the digestive organs, enter the circulation, and irritate the nervous system, and, in their excretion, irritate the kidneys. Bouchard has noted the frequent association of albuminuria with dilatation of the stomach—the former occurring in 13 to 17 per cent. of the cases of the latter. This association can hardly be a mere coincidence, and, although Bouchard does not assume to solve the relationship existing between them, he nevertheless ventures to suggest that it is either dyscrasia or infection. To the latter view our knowledge of the causation of nephritis would naturally incline us. Nephritis, as we have seen, depends on such a variety of infections that we shall do no violence to reason in assuming, provisionally at least, that gastro-intestinal infection is one of the causes. If the toxins of the specific fevers produce nephritis, why not the toxins of gastro-intestinal putrefaction?

Increased catabolism of pregnancy furnishes a further increment to the excrementitious matter whose outlet is by the kidneys. This increased catabolism has two sources—the maternal and the fetal organism. The augmentation of maternal catabolism during the period of pregnancy is slight no doubt, but hardly insignificant. The enlarging uterus makes physical labor constantly more onerous, while the waste incident to the uterine contractions of pregnancy contributes no mean increment to the total catabolism of the maternal organism. Woman's labor is too often not lightened to compensate for the worry and work naturally incident to prospective motherhood. That in pregnancy increased labor is put on the heart is shown by its quickened beat, and by the hypertrophy of its left ventricle; that catabolism is increased is shown by the augmented elimination of carbonic acid, which, according to Andral and Gavarret, amounts to 25 per cent. I am not aware that a corresponding waste in nitrogenous tissue has been demonstrated, but I have little doubt of its existence, at least in an approximate degree. Whatever question may be made of the augmented catabolism of pregnancy, none can possibly exist in regard to that of labor. The waste in prolonged and difficult labor is enormous, and the strain on the kidneys, already overworked, if not structurally damaged, must be proportionate.

Finally the catabolism of the fetus contributes its share to the extra work of the kidneys in pregnancy. What this amounts to is wholly conjectural, but the weight of the fetus and its envelopes at term ranges from 7 to 10 per cent. of that of the mother, and its catabolism may be safely rated at from 3 to 5 per cent. Even should it be rated still lower, assuredly it cannot be entirely ignored in our valuation of the various factors in the pathogeny of eclampsia.

Besides this increase of toxic substances which, to me, seems demonstrable, Herrgott has assumed the existence of a toxin produced by a special microbe, whose identification was announced by Gerdes. Several competent observers, however, contradict this conclusion, and, therefore, before pronouncing an opinion it would be well to await the result of further investigation. The noxious influence of this excess of toxic substances produced during pregnancy and parturition is manifest in two ways—by irritating, and finally inflaming the parenchyma of the kidneys, and thus impairing their powers of secretion, and by accumulating in the blood and irritating the nervous system.

Other factors, no doubt, contribute to the production of renal insufficiency. Compression of the ureters, perhaps, by damming up the urine may hinder secretion; compression of the renal veins and of the kidneys themselves may produce capillary anemia of the kidneys, and consequent diminution of function; and reflex impulses from the uterus may induce renal anemia, with a like result. These factors, however, seem to me less influential than they are frequently regarded.

So far our pathway has been illumined more or less by the light of knowledge. We must now take a step into the darkness of the unknown. What is the immediate cause of eclampsia? Is it cerebral anemia, either primary or secondary? Is it inhibition of some inhibitory center? Is it irritation of the cerebral cortex? Is it irritation of the spasm center of the bulb? The future must determine. The theory most in favor at present is that of cortical irritation, and this may be accepted as a working hypothesis.

The pathogenic chain of eclampsia, then, is excess of toxins, nephritis, renal insufficiency, retention and accumulation of toxins, cortical irritation, eclampsia.

The treatment of nephritis and eclampsia, like that of most other diseases, may be divided into prophylactic and curative. In prophylaxis our first efforts should be to limit the formation of toxic substances, and particularly of toxins, and to sweep them out of the system as quickly as possible after their formation. To these ends the functions of the digestive and of the elimintative organs should be constantly supervised, and tissue waste should be restricted within normal limits, and this, not from the sixth month onward only, but from the very beginning of pregnancy. The cark and care of woman's life should be reduced to a minimum. During the period of pregnancy her nervous system is markedly impressionable, even to the verge of disease. The husband and friends should be made to understand that, while pregnancy is a physiological condition, it is too often engrafted on a pathological basis, and particularly a degenerate nutritive system, resulting from our highly artificial and unhygienic modern life; that it is a physiological condition which makes enormous demands on the functions of nutrition, innervation, and excretion. Worry should be avoided, and waste of the nervous system should be kept within physiological limits. Not only should waste of the nervous system be restricted, but its tone should be maintained so as to minimize the reflex disturbances of the digestive and renal functions.

The digestive organs should receive special attention. The food should be simple, nutritious, varied, and, above all, it should be thoroughly masticated. If fermentation occur in the stomach dilute hydrochloric acid may be used or one of the numerous antiseptics, as hydronapthol, betanapthol, napthaline, benzonapthol, always excluding salol. The bowels should be kept regular, but not loose, regular to prevent the retention and absorption of the toxins of intestinal origin, but not loose, because a liquid condition of the contents of the large bowel favors putrefaction. By intelligent attention to the functions of the digestive organs we shall generally be able to restrict and often to prevent the undue production of gastro-intestinal toxins, but we can never be certain in what degree this is accomplished, and, therefore, with this control of the digestive processes it will be wise to flush the kidneys and sweep the toxins out of the system by copious draughts of liquid.

For this purpose Jaccoud has proposed the daily use of two quarts of milk during the entire period of pregnancy. He reports excellent results from this dietary—if I am not mistaken, the absolute prevention of the nephritis of pregnancy. I have entire confidence in the accuracy of Jaccoud's statement, but with a great many women I find it difficult, if not impossible, to enforce a milk regimen for so long a period. I generally content myself, therefore, with insisting on the daily use of not less than two quarts of liquid—either plain water or alkaline mineral water, such as Shasta or Apollinaris, in conjunction with whatever quantity of milk can be taken without repugnance.

So much for the prevention of the kidney of pregnancy. What of its treatment? In every case of pregnancy as soon as it comes under the care of the physician, a urinary examination should be made in order to determine the condition of the kidneys. Occasional examinations should be made during the fourth and fifth months, and weekly examinations thereafter to the end of pregnancy. Preëxisting nephritis in a primapara after forty, demands either abortion or premature labor, for, if Tyson's opinion be correct, death of the mother would, invariably, otherwise result.

In all cases of nephritis in pregnancy an absolute milk diet should be instituted. The results of my own observation in a considerable number of cases corroborate the statement of Jaccoud that, in the nephritis of pregnancy, an absolute milk diet is practically specific. My confidence in it is so great that I have repeatedly assured my patients that after three days of milk diet I should have no fear of eclampsia. Perhaps my confidence is too great, but it is the outgrowth of repeated observation covering a period of fifteen years. But whether it be too great or not, there can be absolutely no question of the great value of milk in this condition. It should be given in gradually increasing quantities every hour and a half until a maximum of from three to five quarts is reached by the third or fourth day, or sooner if the symptoms be urgent. It may be given either hot or cold, or alternately hot and cold. If it disagree it may be peptonized or taken with an equal quantity of Shasta or other mineral water, either mixed or separate—preferably the former. Lime water is an excellent addition in some cases, or if the bowels are inclined to constipation, milk of magnesia. If, notwithstanding these precautions, milk still disagree, it should be skimmed and treated in the ways advised for whole milk. Although perhaps less efficient than plain milk because of the destruction of their sugar by the process of fermentation, koumiss and buttermilk may be held in reserve and used either exclusively or conjointly with Shasta water, or with milk in whatever way it is most easily borne.

With all our firmness milk may occasionally be refused because of the insuperable repugnance of the patient, and, with all our ingenuity, it may occasionally, although I believe rarely disagree, because of extreme acidity of the stomach or other anomaly of digestion. I cannot, however, concur in the opinion expressed by Prof. Jewett, that milk alone does not serve for proper nutrition for much more than a week. On the contrary, I have repeatedly used it for several weeks continuously and with the happiest results, not only in nephritis, but also in various diseases of the digestive tract.

In the actual presence of eclampsia several indications are to be fulfilled:

1. To limit the production of toxins and of retrograde material.
2. To promote their excretion.
3. To dilute them in the circulation.
4. To depress the cerebral cortex, the motor tract of the spinal cord and the conductivity of the motor nerves; and, finally,
5. To avert death.

The first indication is to be met by the dietetic and hygiene measures already suggested, and, in urgent cases, by the induction or promotion of labor, in extreme cases, by accouchement forcé, under the most vigilant antisepsis and the fullest anesthesia.

The second and third indication are best met by the free administration of liquids by the stomach or bowels, or, if time presses, by intra-cellular or intra-venous injection. If the symptoms are not threatening I content myself with giving milk by the mouth and saline solution by the rectum. A teaspoonful of common table salt should be dissolved in a quart of warm water and carried well up into the colon through a large, soft-rubber catheter, and a strong compress placed against the anus to compel its retention. This should be repeated in an hour and as often thereafter as the capacity of the bowel will permit. I have introduced in this way as much as ten quarts in the twenty-four hours. If the symptoms be urgent and the patient strong, a pint of blood should be taken from the arm and double the quantity of saline solution injected into the cellular tissue or an equal quantity directly into the veins, while a drachm of chloral is added to the rectal enema, and repeated in a few hours if necessary.

Nothing else, either theoretically or practically, meets the fourth indication as well as chloral. To anticipate or to supplement its action chloroform should be used by inhalation nearly or quite to the surgical degree.

The fifth indication is to be met by sustaining the powers of life in every possible way that the exigencies of the case may demand or the ingenuity of the physician suggest.

212 J street.

ABSCESS OF THE BRAIN FOLLOWING SUPPURATIVE OTITIS MEDIA.

By A. Barkan, M.D., Professor of Ophthalmology and Otology, Cooper Medical College, San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

Sarah D——, 13 years of age, had been an inmate of the Hebrew Orphan Asylum about 3 years. Two brothers are at present in the institution; an older one suffering from consumption; a younger, from St. Vitus' dance. The matron considered her of rather dull intelligence, but otherwise healthy. She had never had ear trouble before the present attack. She first complained of pain in the left ear on November 1st, which was considered an ordinary earache. Warm glycerine and cotton was applied, and the pain ceased for a couple of days, when she was again troubled.

On November 4, 1894, she took sick with sore throat, and was attended by Dr. Davidson for it. The ear began to discharge pus and then was syringed with 4 per cent. boracic acid solution every few hours, and flaxseed poultices were applied to the back of the ear. She remained in bed for a week, her sore throat improving during this time and the ear discharging, copiously, greenish yellow pus, which was free from any odor. She had no pain while the ear was running. The patient looked ghastly, though she took her regular meals. She now felt much better, and even went to school for one day, the ear all the while being syringed three times a day.

On November 10th, when menstruation came on, she again complained of dizziness and slight headache; she was ordered to bed, the discharge still continuing. On November 21st she was brought to my office, where, I being absent, Dr. Swett examined her and ordered the ear to be syringed every three hours. The next day I saw the patient and ordered four leeches to the mastoid region and ice bags to be applied day and night, though there was no swelling or redness of the skin and not much tenderness.

On the 23d, she was well enough to come down stairs, and had no pain in the ear or in the head, but she seemed rather more stupid than usual and held the head a little to one side. Temperature 98.5°, rising to 102° by 9 o'clock. At 2 A. M., she suddenly had a severe pain in the head. At 11 o'clock I found the patient in a stupor, not disturbed by the preparations for operation which were ordered, though she minded her kind matron's orders as to changing her clothes, etc. The stupor was diminishing her sensibility to pain. The pulse was regular and good, the ear was discharging slightly, the amount of discharge having continually lessened during the days previous. There was no swelling over the mastoid, but pressure there caused pain.

Without being sure that the mastoid was involved, and fearing that serious intracranial complications had already set in, I opened the mastoid in the hope of finding pus within its cells. The incision was made in the usual way, and with chisel and gouge, the way was sought into the mastoid antrum. There was none. The mastoid was completely eburnated; not a trace of antrum or other air cell could be found, though a very deep excavation was made.

The patient grew quite conscious in the afternoon, knowing everyone around her. She had no pain, and took milk and pieces of ice. She slept well the following night. Temperature 100° F. She felt well, was quite conscious, and had a good appetite and no pain. The wound looked well. During the night following, she complained of pain in the head. Temperature 101°. She became slightly delirious and tried to get out of bed. On the next day she was quite conscious. Dr. Henry Gibbons and Dr. Davidson saw the case in consultation, and agreed with the diagnosis of meningitis and probable cerebral abscess. Examination of the eyes showed no optic neuritis. The delirium rapidly increased, so that she had to be held in bed. She lay there screaming, with head bent back and toes turned down. The temperature was 102°. She died next day.

Autopsy.—At the autopsy made the following morning, the membranes of the brain were but slightly congested. In the lymph spaces following the vessels of the pia mater there was more or less pus, mostly on the left side, but a little also on the right. In the lymph spaces on the surface of the cerebellum also, there was a considerable quantity of pus. The under portion of the temporo-sphenoidal lobe, which lies immediately over the petrous portion of the temporal bone, was softened and broken down, forming an abscess about the size of a small hen's egg. The dura mater was but slightly congested and was thickened over an area of about a quarter of an inch in diameter. Beneath this, the bone presented no visible perforation. The brain and the temporal bone were preserved and are here exhibited.

14 Grant avenue.

A CASE OF ABSCESS OF THE BRAIN.

By J. O. HIRSCHFELDER, M.D., Professor of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

The following case presents features of some interest in relation to the case of Dr. Barkan, which has just been reported.

Peter Z——, aged 26, married, presented himself on October 31, 1892, with the following history: He was well as a lad. Five years ago he had a chancre, not followed by any secondary symptoms. Six years ago he was struck on the head with a butcher's steel, producing a wound that bled freely. He was not rendered unconscious, but two hours later he vomited, had severe pain in the head, and was unable to walk. He was taken to St. Mary's Hospital, where he remained in bed for one week, during which time he had fever but no delirium. He then had a relapse, as he calls it, resulting in severe headache. The temples were leeched, but the pain continued for two weeks when the wound was opened, washed out and dressed. It finally healed, and the patient had been well until one year ago when he had typhoid fever which lasted five weeks.

Shortly after this, while at work, patient suddenly became confused in mind. He fell to the ground and became unconscious, in which condition he remained for two hours. During this time he vomited repeatedly. He recovered and felt well until one month ago, when the site of the injury upon the head became swollen and painful to pressure. This continued for one week, when he had an attack as follows: He first saw red and blue spots to the right side of the field of vision. This was followed by salivation, vomiting, staggering, mental wandering, vertigo, and unconsciousness, which lasted three hours. The next morning, and for a week thereafter, he felt well.

Last Saturday he had another attack, but did not become unconscious.

Physical examination.—Patient is a well nourished, well developed individual; thorax well formed; heart and lungs normal; liver and spleen not enlarged. On the left posterior occipital region three small scars are seen, the bone at that point being thickened and somewhat sensitive to pressure. There is no paresis about the face. The right pupil is very much dilated, and does not react to light; left pupil reacts to light. The fundus is normal. There is loss of vision in the right half of each field. Wernicke's symptom is present on each side—that is, both pupils react when light is thrown on the blind half of the retina. There is no paresis of the extremities; sensibility is intact. The urine is normal.

A blister was applied to the left side of the head. November 6. Patient has had a severe headache since three o'clock yesterday morning, for which he was given phenacetin gr. x every two hours. On the four following days patient remained about the same.

November 11. Patient was anesthetized and under antiseptic precautions an elliptical flap was made, exposing the occipital protuberance. Three trephine buttons were removed, using a three-quarter inch trephine, and the intervening bone between them chiseled out. The operation was performed by Dr. Stillman. The skull was unusually thick. There was a clot beneath the dura about the size of a half dollar, and a pachymeningitis interna was found extending over a considerable area. Beneath the old scalp wound the brain substance was softened and apparently infiltrated. Aspiration with a hypodermic needle revealed no pus. The shock from the operation was slight, but in the evening the patient complained of pain in the head and neck, for which he was given morphine.

November 12. Patient is very pale and still has pain in the head, but this is relieved when the head is elevated. November 29. There is a small cerebral hernia, otherwise the patient is feeling well. December 6. Patient had a convulsion at 4:30, and another a little later. At present he is in a dazed condition. Ordered kali brom. one dr. four times a day. Patient has not had any more convulsions, but pus appeared in the posterior part of the wound, necessitating an incision and the insertion of a drainage tube.

December 29. Patient was again anesthetized, the incision enlarged, and a second drainage tube inserted. January 17, 1893. The discharge is much diminished, but the patient still has pain in the head; kali brom. continued.

January 22. Patient was again anesthetized, the old scalp wound was enlarged, and the posterior lower margin of the opening in the skull exposed and chiseled away. An abscess cavity was found in the brain substance beneath the site of the original opening in the skull, which was incised and irrigated and drained.

February 1. At the time of dressing the wound syncope occurred, followed by semi-consciousness. Patient was ordered strychnine sulph. one one-hundredth of a grain, and nitro-glycerine (1 per cent solution), gtt. ij every half hour. February 2. Patient is comatose. Has involuntary evacuation of urine and feces. The temperature is 103.5°; pulse, 190; respiration, 24. February 12. Temperature 103.5° in morning, 105° in evening. Pulse 190 morning, 198 evening. Pupils do not react to light. Right pupil is slightly larger than left. Patient was ordered a cold bath. This was followed by collapse. Respiration was reëstablished by artificial means.

February 13. Patient died. The *autopsy* revealed three abscess cavities in the posterior occipital lobes upon the left side, one of which communicated with the wound. There was a penetrating wound of the skull, as seen by the specimen here presented, and at the margin of this opening a spicula of bone was found to extend inwards three-eighths of an inch or more.

433 Geary street.

A WORD IN THE INTEREST OF SURGICAL TECHNIQUE, IN REPLY TO PROF. SHIELS.

By Wolrad Winterberg, M.D., San Francisco, Cal.

In the April issue of the Occidental Medical Times there appears an article entitled "The Darker Side of Surgical Technique," by Dr. George Franklin Shiels. If this article had been written by any medical practitioner without the titles Prof. Shiels appends to his name, it might be passed into oblivion without any further notice or comment, for its weakness is apparent; but, emanating from the pen of a fellow-practitioner, who possesses the rare faculty of being equally proficient as *professor* in two entirely different branches of the medical sciences, if I am not mistaken, it seems to call "halt and think."

As his first reason for writing this article, the author quotes a question put to him as a skilled witness in a malpractice suit by a lawyer on cross-examination, viz: "Doctor, does this new antiseptic and aseptic epoch in surgery justify you in cutting and slashing the human body anywhere and everywhere?"

The second reason he gives is that the "American Text-book of

Gynecology'' seemed to him to be written on the basis that if you operate according to the chapter on *technique*, and follow the ideas set down in the text and depicted in the plates, all will be well.

As a third reason the Professor mentions an account of hysterectomies performed by a female surgeon of our city, who tells how she nicked the bladder or perforated the intestine, and how she stitched them up, and all was well because of her perfect aseptic precautions.

In regard to the first point, there is nothing astonishing in the fact that a lawyer, who is not supposed to know anything about the principles that ought to guide us in determining the advisability of surgical procedures, should ask a question which, beyond an emphatic answer in the negative, does not deserve further consideration. What is astonishing is that it should have been interpreted by Prof. Shiels as detracting from the merits of surgical *technique*, or putting on a darker side to it. I, for one, cannot possibly see how this question could reflect in an unfavorable light on the merits of anything that belongs to the realm of that part of surgical science; no more do I believe that any practitioner, whoever he might be, would answer the lawyer's question affirmatively, or act on the principle suggested therein.

He who thinks that he is justified in slashing the human body anywhere and everywhere for no other reason than that he can do so with impunity because of proper aseptic precautions, merely betrays a lack of proper training and a gross ignorance of the principles of anatomy, physiology, and therapeutics in general, which must decide the question, whether or not to operate, in a given case. Anesthesia, in no lesser degree than asepsis, enables us to do operations which would not be otherwise feasible; still nobody would decide upon such procedures merely because he could avail himself of such powerful and sometimes indispensable adjuvants as ether or chloroform.

As to the second point, I am sorry that I cannot agree with Prof. Shiels in regard to the merits of the ''American Text-book on Gynecology.'' I believe it is a very good book for students and practitioners, and I do not think that too much space is given to surgical *technique* at the expense of diagnosis and indications for operative or medical treatment.

The first chapter of the work is devoted to gynecological examination, *id est*, to the means and ways of making a diagnosis. In the second and somewhat shorter chapter on *technique*, the writer says: ''*Technique*, in gynecology, is a word used to designate certain features in the details of an operation, essential to its proper performance, and is the most powerful factor in ensuring its success. *It has nothing to do with the diagnosis, the prognosis, or the determination to operate.*'' Further on he says: ''With a perfect *technique* the surgeon is acquitted of personal responsibility as to the result, *providing his judgment to operate has been good;* while, if his *technique* is bad, he always stands arraigned before the bar of criticism, and is from time to time directly responsible for the bad results of his work.''

I fail to see the correctness of the judgment passed by Prof. Shiels on this book; but even if I were ready to admit that his criticism was well founded, what inference could be drawn from that? Nothing more nor less than that the book was faulty.

The third point seems to me to prove exactly the contrary of what Prof. Shiels intends, namely, that there is an extremely bright side to surgical *technique*, instead of a darker one. Wounding of the bladder or the intestines will sometimes be unavoidable in certain cases of hysterectomy, even in the hands of the best scientific men and the most brilliant operators.

I have myself seen Prof. Koenig open the bladder in detaching it from a closely adherent uterine tumor; and Dr. A. Martin, of Berlin, reports several cases of hysterectomy and ovariotomy, in which the bowel had been wounded and had to be stitched. If such accidents can happen to such eminent men, why not to a female surgeon of San Francisco? and if she mastered the surgical *technique* sufficiently well to render these accidents harmless, she is to be complimented for possessing that indispensable skill, and the medical profession at large is to be congratulated for having means that make it possible to overcome such difficulties.

What Prof. Shiels means by the following sentence is not clear to my mind: ''So long as the wound, which they have inflicted, heals kindly, the mutilation is hidden by a mass of cicatricial tissue.'' It occurs to me that if the wound heals kindly there will not be a mass of cicatricial tissue, and a linear cicatrix, such as will generally follow a perfectly aseptic operation, will hide the mutilation at least just as well as a mass of cicatricial tissue.

Those obstetricians who carry the *technique* to the cruel extent described by Prof. Shiels, are certainly exposed to ridicule; but they do not detract anything from the luster of the progress in surgery by applying the unbroken series of aseptic and antiseptic rules indiscriminately to all cases when they are not needed, and are only an inconvenience to the patient; they merely prove that they are mechanics who perform their work in a machine-like, routine way.

I perfectly agree with Professor Shiels when he says there are persons in no way fitted to be surgeons that are carving their way through life. Here is a striking example of that kind:

Not long ago a patient came to my office who had sustained a fracture of the tibia a number of years ago, and had recovered with a fairly good result. He was suffering from varicose veins and eczema of the injured limb, and had been advised by a surgeon to have his leg cut off. This advice the patient declined to follow. The eczema very quickly yielded to local treatment, and an elastic stocking was ordered for the varicose veins.

The man who would use such unscientific and unprincipled methods, certainly does not deserve the name of surgeon, but neither does he throw any discredit upon surgical *technique*. There is nothing to prove that he is skilled in that branch of surgery; his action may have been prompted merely by greed, or to gross ignorance. Personal observation teaches me that a thorough study of surgical *technique* is often too much neglected, and that asepsis, in the hands of many operators, is lamentably defective. Other conditions being equal, I claim that he who uses ''aseptible'' instruments, as the Professor says, and renders himself aseptic by going through the solutions, and then can show good results, having his patient up in a fortnight, is far better fitted to be a surgeon than the one who neglects these precautions at the risk of the patient's life.

It seems to me that the arguments advanced by Prof. Shiels utterly fail to show that there is a darker side to surgical *technique*. He tells us of a lawyer asking an absurd question; of a woman surgeon, who wounded the bladder and intestines when performing a hysterectomy and further states that slashing is abroad, and that there are some stupid people in this world who carry asepsis in obstetrics to a ridiculous point. He intimates that such facts may detract from the lustre of surgical *technique*.

Now, let me ask, who in the world would venture to write an article on the darker sides of anatomy or physiology, or other branches of the medical sciences, that are of paramount importance in determining the feasibility of any operation, because a knowledge of these sciences enables the quack, the money maker, the mechanic in surgery, to perform a number of illegitimate operations with impunity?

The development of surgical *technique* to its highest point of perfection is fully as important as the cultivation and furtherance of any other branch of medical science, and that it may be abused for any unlawful purpose, is no more reason why we should shrink from the completion of this noble task than it would be to condemn the cultivation of any art or science, because it possibly might be applied in some unlawful way. Let us all work in the interest of surgical *technique;* its ideal development means glory to the profession and safety to the patient.

1208 Sutter street.

OCULAR HEADACHES.

By A. SCHLOSS, M.D., Stockton, Cal.

Read before the California Northern District Medical Society.

In looking over this subject, I find that headaches are divided into about forty different varieties, depending on the location of the pain and its causes. It is not my intention to discuss it in a general way, but to confine myself principally to one division, namely, ocular headaches.

According to Foster, an ocular headache is a sympathetic headache, caused by asthenopia or astigmatism. In those cases where the defective vision is of such a pronounced type that the patient is aware of it himself, and where he is subject to headaches, the diagnosis is comparatively easy. In those cases, however, where the only thing complained of is a constant pain in the head, and where the vision, by ordinary methods of testing, is found to be very good, the diagnosis is not so simple.

We have all seen patients who have been under treatment for weeks or months for headaches without improvement, simply because the physician has failed, or rather neglected, to thoroughly localize the trouble. The physician is often satisfied to give the patient a prescription calling for one of the antipyretics, such as antikamnia, in this way treating the trouble as an idiopathic rather than as a sympathetic disease, and without trying to ascertain the cause. This is especially the case where the only complaint the patient makes is that they suffer more or less with the headache.

The question that naturally arises with the oculist is, Is the headache a symptom of eye trouble? It often takes persistent questioning to enable the physician to localize the pain sufficiently to assist him to even make a partial diagnosis. In a great number of these cases we will find that the real ache is located in the eye itself. I find that the quickest way to eliminate a great majority of the different forms of headaches is to ask the questions: Do you get up in the morning with your eyes or head aching? Does reading, writing or work of similar character (as fancy work) cause the head to ache?

As a general rule, a person who is subject to ocular headaches will get up in the morning with a clear head, but in a short time, especially if the person be doing much reading or writing, the peculiar, dull, heavy aching will commence. Occasionally we will meet with one who, from overwork, will get up in the morning not feeling refreshed, and the eyes or head still aching. This is especially the case when there is much weakness of the ocular muscles.

It is not my intention to say that all headaches are due to the different forms of eye strain, but I will contend that of all the different varieties those that come under the head of ocular are the most numerous and the most persistent, but the easiest to relieve under proper treatment.

Let me cite two or three cases and note the result.

CASE 1. Mrs. W——, aged 34, was under treatment for some time for headache, that being the only thing she complained of. After being treated unsuccessfully for several months, she was finally referred to me for examination. Persistent questioning elicited the fact that, besides her head aching, she would have dizzy spells that invariably result in nausea; also that her eyes felt sore and heavy, and that she had sharp, shooting pains to the back of the head. These shooting pains caused occipital headache, which led one of her physicians to believe that she had either kidney or uterine trouble. She informed me that her headaches could not be caused by her eyes, as she was far-sighted. I found her vision to be 15.10. Lenses caused blurring. Adduction and abduction normal. From this superficial examination one would infer that her headaches were not due to the eyes. The patient would not give her consent to the use of atropine, but did not object to homatropine, after I explained that its effect would wear off in a few hours. I was not at all surprised to find, after the pupils were thoroughly dilated, that her vision in the right eye was only 15.70, and in the left 15.100. I felt perfectly safe in informing the patient and her attending physician that her headaches were caused by a constant strain on the muscles of accommodation. I prescribed the following lenses to to be worn constantly:

O D + .25 ◯ + .25 cyl ax 90
O S + .25 ◯ + .50 cyl ax 60

The patient was relieved at once, and up to the present time has had no return of her previous trouble.

CASE 2. Miss I——, aged 16½, student; complained of constant headaches; was taken out of school, as studying made her worse. She would be free from all pain in the morning for perhaps an hour or two, but never for any longer period. Her vision was found to be very good—15.10. I gave her a solution of atropine (4 grs. to the ounce), two drops to be instilled into each eye every five hours, and instructed her to return in four days.

Upon examination, I found her vision to be 15.15, the ophthalmoscopic examination resulting in the negative. I was, therefore, convinced that defective vision was not the cause of her headaches. I kept up the use of the atropine for a few days longer, and then told her to discontinue it and to return in three weeks. On her return, she informed me that she had had no headaches during the time she was using the medicine, and for some time afterward, but that for the past few days the trouble had again returned. This was evidence to me that her eyes were the cause of her headaches, and on testing the internal and external recti muscles, I found the cause in an exophoria of 12 degrees. Upon close questioning, she finally admitted that at times she would see double. By using prisms she was greatly benefited, and when I heard from her last she was still improving.

CASE 3. Miss S——, age 18, student. This patient was a great sufferer from headaches. She was myopic, and had an exophoria of 3 degrees, of the right eye only. I prescribed concave glasses for general use and prisms for near work, with the result of relieving her of the headaches.

In closing, I may say that those headaches that are due to a spasm of the accommodation, or to astigmatism, as in *Case 1*, are the most satisfactory to treat, for the simple reason that the patient is relieved at once of her headaches upon wearing the proper lenses. There are many other forms of headaches due to the eyes, but I have only spoken of these three types, as I think they are the most numerous, excepting the form that is accompanied by defective vision, and which is easily diagnosed.

The family physician will often save himself a great deal of annoyance if, in trying to find out the cause of a headache, he will include in his examination a superficial test of the eyes. It often happens that there is defective vision in one or both of them, and, if such be the case, it is best to see if the headaches are due to this cause, and thus arrive at a diagnosis by exclusion.

Main and San Joaquin streets.

DR. WOODBRIDGE'S SO-CALLED ABORTIVE TREATMENT OF TYPHOID.

By JOHN FIFE, M.D., Red Bluff, Cal.

Read before the California Northern District Medical Society.

That it is possible, by means of internal medication, to mitigate the severity of typhoid fever, and occasionally to abort it, is, and has long been, the belief of many in the profession; but that it is possible to abort it in all cases, is a view that has been advocated by few. Of these, the most enthusiastic and persistent is Dr. Woodbridge, of Youngstown, Ohio.

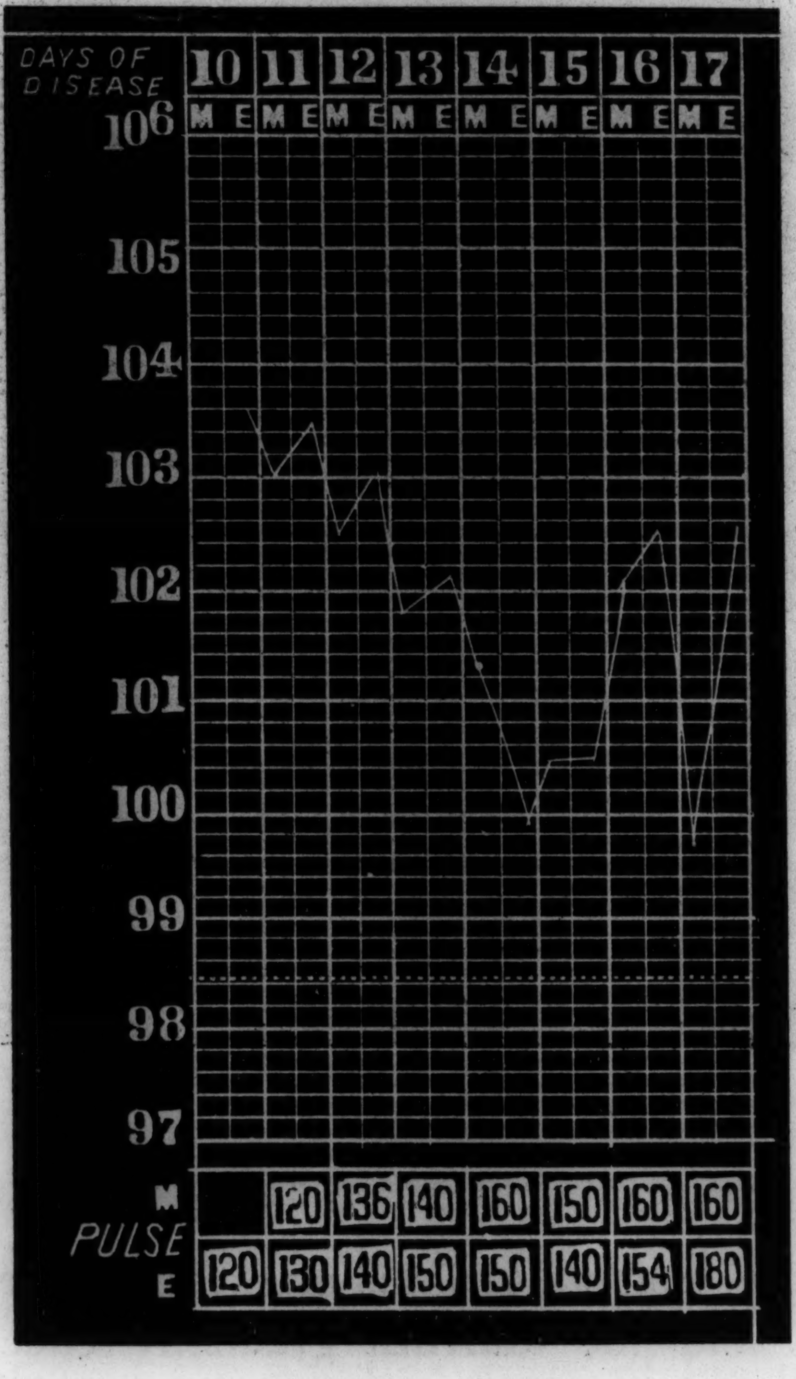
In a paper, read at the San Francisco meeting of the American Medical Association, he stated that he had been advocating and practicing an abortive treatment for many years, and though his experience had been large, for thirteen years he had not had a death from the disease. He attributed his success solely to the administration of the following medicaments, embraced in three several formulæ: podophyllin, calomel, carbonate of guaiacol, menthol, eucalyptol and thymol. Administered according to his directions, the treatment would "abort typhoid fever, and a death from the disease would be unknown."

In a subsequent paper, which was published in the Association Journal, he reiterated and emphasized his opinion, and gave the histories of a number of cases, charts of nine of which were published, bringing the total number of published cases up to ninety-six, all of which were aborted, for aught that appears to the contrary. No restrictions were placed upon diet or exercise, patients being allowed to eat beefsteak, while covered with rose-spots, or to ride on horseback while the temperature was 102.5° F. The importance of beginning the treatment early, was insisted upon, and the statement made that unless so begun, it would not always be possible to abort the disease, or even to avert a fatal issue.

I direct your attention particularly to this statement, because, in his own practice, the doctor appears to have an invariable prognosis. "There is no danger from typhoid fever if properly treated early," applicable alike to cases on the twelfth as on the third day of the disease. Of the nine cases with published charts, which are given as instances of the abortive effect of the treatment, it was begun during the first week in but one, and in six cases not earlier than the tenth and as late as the thirteenth day; yet in three the usual prognosis was given with much *éclat*.

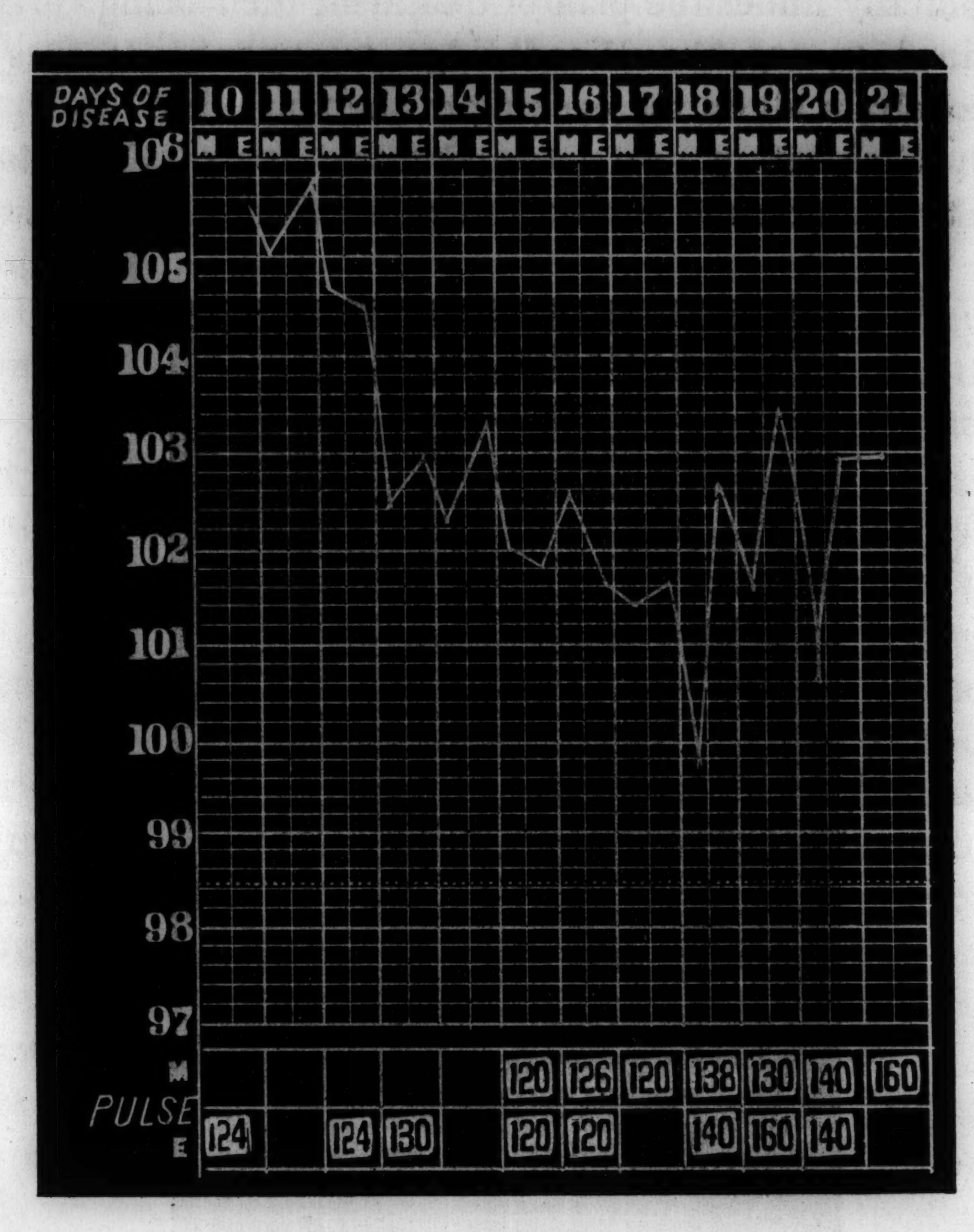
The following histories of cases are submitted as conclusive evidence of the fallacy of *some* of the doctor's statements, and as suggestive of the possibility that his success was due to a most extraordinary run of good luck. In the latter part of January, I was called to attend a family of children, the mother of whom I had previously attended through a severe attack of typhoid. Three children were ill with the fever, seventh day, two with grave and the third with mild symptoms. The surroundings were extremely insanitary. I placed them upon the usual treatment; but, on the morning of the third day of my visits, and the tenth of the disease, I became convinced that, in view of its unusual virulence, the unfavorable surroundings and unskilled nursing, the two grave cases would terminate fatally under the plan of treatment then being carried out. I determined to try the Woodbridge treatment. It was begun simultaneously in all on the evening of the tenth day.

CASE I. Girl, æt. 7 years; temperature, 103.5° F.; pulse, 120; abdomen, tympanitic and tender; diarrhea—from 8 to 12 passages in 24 hours; delirious at night; spleen enlarged; lenticular eruption not discovered.



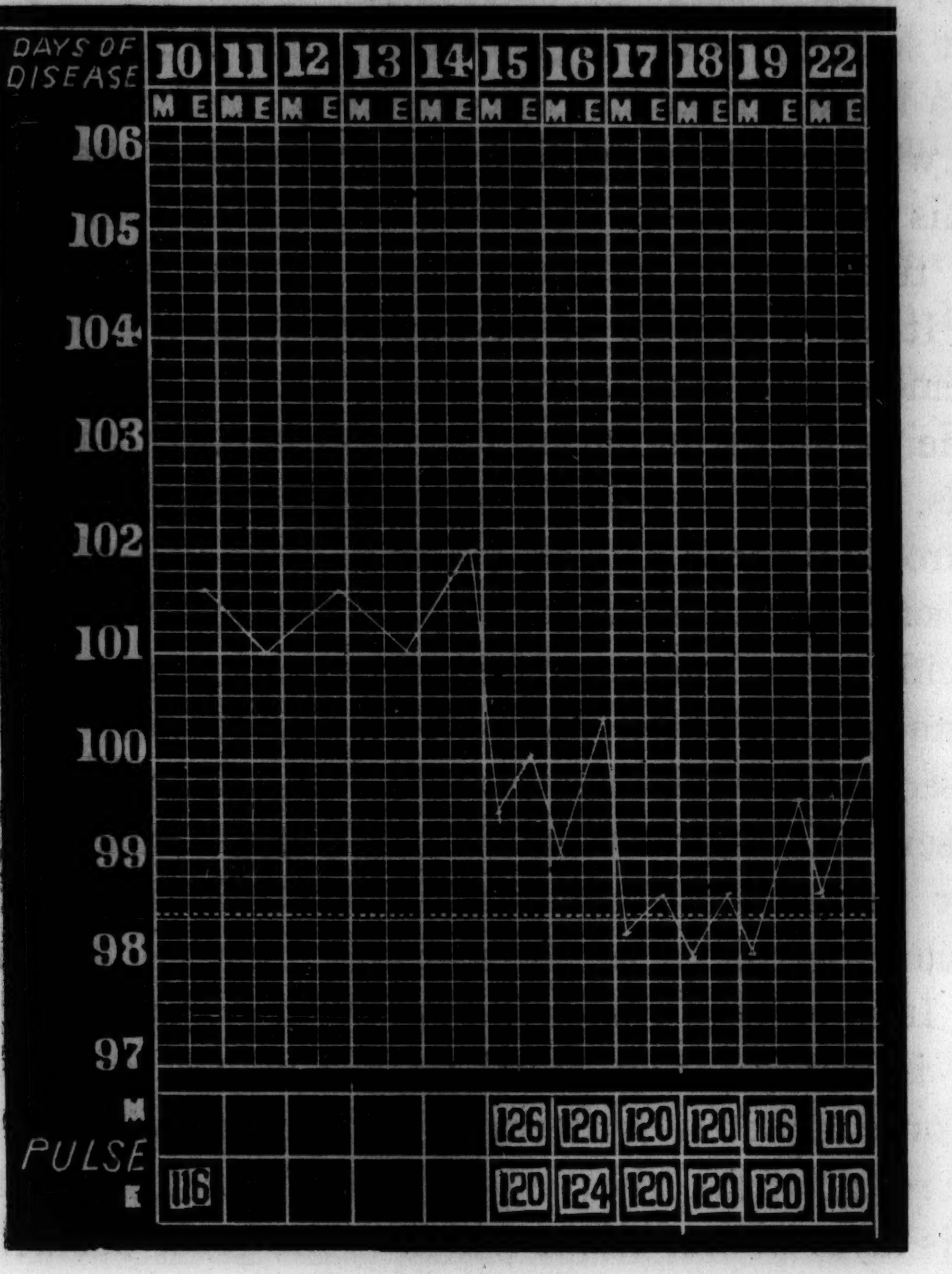
The tympanites gradually subsided; the diarrhea, aggravated at first, rapidly checked after the thirteenth day; the delirium became constant, and, on the fourteenth day, gave place to a soporose condition approaching coma. The tongue became dry, brown and cracked; inflammation of left parotid, causing great swelling, manifested itself on the sixteenth day. Death occurred on the morning of the eighteenth day.

CASE 2. Boy, æt. 10 years; temperature, 105.3° F; pulse, 124; lenticular eruption on abdomen; other symptoms well marked.



As in *Case 1*, the temperature was markedly influenced, the tympanites subsided and the diarrhea gradually checked; the other symptoms slowly increased in severity; the tongue became brown and dry, delirium increased, becoming very violent on the seventeenth day, though his temperature was but 100.3°, and was at length replaced by a condition of sopor from which he never emerged. The treatment was discontinued on the morning of the twentieth day as useless, and replaced by active stimulation and forced nourishment. Though his temperature touched normal on the morning of the twenty-third day, he died of exhaustion on the evening of the twenty-fourth.

CASE 3. Boy æt. 3½ years; temperature, 101.5°; pulse, 106; diarrhea severe; other symptoms mild.



As the record shows, the temperature fell below normal on the morning of the seventeenth day; rose to 99.3° on the evening of the nineteenth day, and to 100° on the evening of the twenty-second day, after which, no further elevation was observed. The other symptoms slowly disappeared, and he was pronounced convalescent on the twenty-fourth day. Dr. Woodbridge might consider this case as an instance of the abortive effect of his treatment; but I attach more importance to it as evidence of its harmlessness.

CHRONIC ULCERS TREATED BY THIERSCH GRAFTING.

By EMMET RIXFORD, M.D., Adjunct to the Chair of Surgery, Cooper Medical College, San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

During the past few years much has been written on the subject of Thiersch's method of skin transplantation, the *technique* of the operation has been improved and the limits of its usefulness enlarged, until it stands to-day as one of the most valuable procedures in the range of operative surgery. Its simplicity, its rapidity of execution, the slight scarring of the region from which the grafts are taken, the fact that a large surface can be completely covered at a single sitting, and that, when carefully applied practically all of the grafts live, have caused this method of skin grafting to supercede all others.

In the treatment of chronic ulcers it has given most excellent results. It has a number of advantages over the ordinary methods of curettement, strapping, scarification, cauterization and the application of the various stimulating drugs; it is far more rapid, it almost never fails, it produces a more permanent cure.

The chronic ulcer is generally due to some disturbance of the circulation, such as the stasis caused by varicose veins, or it is due to some specific cause, such as tuberculosis, or in some cases to repeated traumatism with infection, by which a simple ulcer in an individual of depressed vitality becomes chronic. In all, the anatomical conditions presented are pretty much the same. Beneath the necrotic surface or the sluggish granulations there is a stratum of fibrous tissue of varying thickness, the seat and the result of chronic inflammation. It consists of coarse fibres with occasional groups of round cells, and is traversed by blood vessels whose lumina are greatly lessened or completely obliterated by proliferation of their inner coats, the result of the so-called endarteritis obliterans.

It is this layer of scar tissue which is the great obstacle to successful treatment and whose persistence is the chief factor predisposing to recurrence. It may be destroyed partially by caustics, it may be deeply scarified, it may be irritated by various drugs in the anticipation of setting up an acute in the place of the chronic inflammation, causing an increased flow of blood to the part, with dilatation of the half obliterated blood vessels. Pressure produced by strapping is effective in much the same way. These methods give good results, to be sure, but in the case of extensive ulcerations they require a great deal of time; the stimulation must be continually repeated, the cicatricial base is only partly absorbed, and at best there is, as a result of this very inflammation which brings about the cure, a certain amount of cicatricial tissue deposited, which is prone to contract and which is ready to break down on the occurrence of some slight bruise or scratch with infection, or on the establishment of venous stasis.

It is reasonable to suppose that the simple removal of this cicatricial base of a chronic ulcer with the knife, which takes but a moment, and which may be as thorough as desired, should be the most satisfactory procedure, especially when we can cover the resulting defect at once by the method which Thiersch has given us. In the wards of the County Hospital assigned to Cooper Medical College, this has been adopted as a routine method of procedure in all cases of extensive ulceration, save the syphilitic and those in which there is a phlegmonous process.

The plan adopted is to prepare the patient as for any operation, carefully cleansing the site from which the grafts are to be taken, preferably the opposite thigh, and removing as far as possible the filth from the ulcer and its vicinity. Under an anesthetic, the region about the ulcer and the surface of the ulcer itself are thoroughly scrubbed with a brush and corrosive sublimate solution (1:2000), washing finally with sterilized salt solution, 0.6 of 1 per cent., simply to get rid of the infectious material on the surface of the ulcer before using the knife. The ulcer is then excised bodily, carrying the knife completely through the base until healthy tissue is reached. The knife should be keen, so as to mutilate the tissues as little as possible and to leave a smooth surface for the reception of the grafts. From half an inch to an inch of the healed margin of the ulcer is also removed with a beveling cut.

The objection to the use of the curette here is, that it fails to accomplish its purpose of removing the scar tissue; it does greater violence, thereby causing more mechanical necrosis, which gives rise to irritating discharges that interfere with the life of the epithelium placed upon the surface, and it leaves an uneven surface which prevents a nice approximation of the epithelium to the tissue from which it is to draw its nutriment.

The deeper the cut, the less persistent the oozing. Larger vessels are wounded, but these are easy to manage. Pressure with sponges or gauze arrests any hemorrhage, but it has the disadvantage, that when the gauze is removed the plugs of fibrin are pulled out from the vessels and this again starts the oozing. It has been found more expeditious to ligate with fine catgut any vessels of considerable size that may have been opened, and then simply elevate the limb and have a stream of cold air thrown on the bleeding surface from a fan in the hands of a nurse. Small clots which form on the surface are carefully removed with forceps or sponge, and by the time the grafts have been cut from the opposite thigh, the oozing has almost invariably ceased. If it be thought that some point will again bleed a small area may be left uncovered by grafts to serve as a vent; or, better, the grafts may be so applied that their edges meet at such suspicious points, which will prevent the neighboring grafts being lifted up by the exuded blood.

The grafts are covered with perforated oil-silk, over which is placed six or eight thicknesses of lint, saturated with sterilized salt solution, and the whole covered with a large piece of oil-silk and cotton. The dressing is first opened on the second day, after which the part is dressed daily, at first with salt and then with boric acid solution. After three or four days it is well to dress with some simple ointment, such as boric acid and vaseline.

Recently several writers have advocated the application of the grafts directly to granulating surfaces, claiming that it is quite unnecessary to remove the granulations either with the knife or the curette. In simple ulcers of recent formation and in the case of fresh granulating surfaces, such as follow burns or surgical wounds, the transplanted epithelium will adhere and live, but there are other considerations than the mere fact of vitality, which should be given some weight. In most cases where grafts are to be cut it is best to give an anesthetic and then there is no objection to removing the granulations. There is certainly nothing to be gained by leaving them. In the case of ulcers with necrotic bases it is a useless waste of time to wait for the sloughs to be cast off and granulations to be thrown out. During this time portions of the ulcer will be healed and more or less cicatricial tissue will be formed here and in the bases of the earlier granulations generally, and this will ever afterward predispose to recurrence. If, however, epithelium can be put on a raw surface before much cicatricial tissue has been formed, practically normal conditions are produced. If grafts be placed on the surface of a depressed wound, say, after extensive and deep excision of the base of a chronic ulcer, the resulting surface will in time be raised practically to the level of the surrounding skin. It has been shown that this new tissue differs from ordinary scar tissue in being more loose and open, like normal areolar tissue, and does not contract, and Goldmann has called attention to the development of abundant elastic fibres in the new skin.

A most important element of success in Thiersch grafting is to so apply dressings as to avoid pressure on the grafts. It is more important to guard against pressure than against infection. In my experience, where death of the grafts has occurred, it has almost invariably been traced to too tight bandaging during the first three days.

In 20 consecutive cases of extensive chronic ulcer of the leg, treated by this method, the average time spent in the hospital after operation was 18 days, while a number of similar cases which were not grafted only healed after 50 or 60 days. Of these 20 cases and a large number of cases of less extensive ulceration, but three had been previously grafted, while most of the others had the usual history of having been cured time and again by other methods, only to have the ulcer break out again on returning to work. In one of these three cases the recurring ulcer did not involve the grafts, and in the other two the ulcerative process was more extensive in the surrounding tissue than in the grafted area.

A number of experiments were made to test the vitality of Thiersch grafts when removed from the body. In one case thin grafts were kept in a bottle of salt solution at ordinary temperatures for 48 hours, when they were laid on a fresh granulating surface. They adhered and grew, though with somewhat more sloughing than did fresh grafts in the same case. In another case a number of the grafts were kept 30 hours in salt solution and applied to a fresh surface resulting from the excision of a chronic ulcer two inches in diameter. The grafts adhered, and the patient, who was 75 years old, was discharged completely cured in sixteen days.

Since these experiments were made the published account of similar experiments made by Wentscher has come to hand. It is evident that in case of any emergency, hemorrhage or otherwise, the grafts may be applied 6 or 8 hours after removal without at all lessening their vitality.

In several of the cases varices in the leg were ligated and excised before trimming the ulcer. The resulting congestion slightly increased the difficulty of stopping the oozing from the surface to be grafted, but no difference was noted in the healing. In one case an ulcer of long duration was excised by being circumscribed, and then dissected off the deep fascia just above the ankle. The extensor tendons were brought to view, but the sheaths were not opened. The grafts were placed directly on this fascia, and adhered readily. At the end of three weeks the new skin had become lifted up to almost the normal level. In another case a leg ulcer four inches in diameter, in the center of which the roughened surface of the tibia was exposed and the exostoses chiseled off and grafts applied. The surface was completely covered by the twelfth day, and the patient was discharged on the seventeenth.

The process of healing may be expedited and the gridiron markings of the resulting surface in great degree avoided by floating the grafts, raw surface up, on strips of protective, and with a sharp, straight pair of scissors trimming off the saw-toothed edge on one side, as suggested by Abbé, of New York, the serrated edge of each graft to be lapped over the trimmed edge of one already applied. It lessens the amount of over-lapping with its resulting necrosis and irritating discharge.

In closing, let me enunciate the following rules for the rapid and permanent cure of chronic ulcers:

1. With a sharp knife cut out completely the base and border of the ulcer, removing all cicatricial tissue.
2. Stop hemorrhage by elevating the limb and exposing it to cold air, ligating larger vessels if necessary.
3. Cover the surface with thin grafts, and dress with salt solution, using extreme care to avoid pressure.
4. Redress after 48 hours to remove sloughing particles, and then dress daily.

229 Geary street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal.,

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal., and

WM. FITCH CHENEY, B.L., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Phenacetin for Pyrexia in Children.—In an article on "The Treatment of Pyrexia in the Acute Diseases of Children" (*Archives of Pediatrics*), JENNINGS, of Detroit, speaks highly of phenacetin. He considers it by far the most satisfactory of the coal-tar antipyretics. Clinicians generally agree that powerful effects like cyanosis and dangerous cardiac depression almost never occur with this drug in reasonable dosage, though they do follow the use of acetanilid and antipyrin. A mistake is frequently made in administering these drugs in too large doses, too frequently repeated. All the reduction in temperature that is necessary or desirable is two or three degrees, and this can be safely brought about with phenacetin in almost any disease. Such a reduction almost invariably relieves the pain and distressing symptoms of pyrexia. The beginning dose of phenacetin should never be larger than one-half grain to each year of age. This dose may be repeated every hour for two or three doses. Guided by the thermometer, or the relief of the distress and the breaking out of a gentle perspiration, the administration of the drug can then be stopped. [There is no doubt that phenacetin is one of the most valuable drugs that we possess for the reduction of fever in children, because of its sedative action on the nervous system, as well as its direct antipyretic effect. Children are so sensitive and so easily disturbed, and even made delirious by elevation of temperature, that the chief indication often becomes that of quieting them and giving them sleep, even more than reduction of the fever. Phenacetin accomplishes both purposes at the same time. It should be more used than it is, in preference to the drug more commonly resorted to—aconite; for Jennings says aconite reduces temperature only by depressing the heart's action and diminishing blood pressure—a fact often forgotten in the routine prescribing of this drug. W. F. C.]

Treatment of Puerperal Eclampsia.—VON GUBAROFF, of Dorpat, (*Centralbl. f. Gynäkol.*, No. 5, 1895) reports six cases of puerperal eclampsia that all resulted favorably for the mother. Of the six, three presented very severe symptoms—high and long continued fever, protracted comatose condition, large amount of albumin in the urine, frequent attacks, etc. The treatment was as follows: Employment of narcotics, especially of morphine, (about ¼ grain subcutaneously six times in twenty-four hours) enemas of chloral, but chloroform only during operative procedures, including catheterization of the bladder. All external means that stimulate the skin's activity or cause its vicarious compensation were freely employed. Among these, warm baths were rarely used; but always moist, warm wrappings, and several times daily sponging with a warm alcoholic solution of acetate of potash. In all cases, as early as possible, care was taken to thoroughly empty the intestinal tract by salines—equal parts of sodium and magnesium sulphate. Moreover, in all cases great stress was laid upon the function of the kidneys. This was stimulated by giving milk and some mineral water and employment of local heat in the region of the kidneys by means of a large rubber bag filled with hot water, which always had a wonderfully favorable influence upon the discharge of urine. In particular in the three worst cases, in which entire loss of consciousness, complete comatose condition, with high temperature and very much decreased secretion of urine existed, under this treatment the amount of urine markedly increased and the amount of albumin decreased; simultaneously occurred improvement of the general condition and, ultimately, recovery. This effect was so surprising to von Gubaroff that he warmly recommends the continuous local application of heat to the lumbar region, particularly in those cases where the amount of albumin is large and the secretion of urine much decreased. Venesection was employed in but one case. Violent convulsions came on at the end of the seventh month of pregnancy, the attacks occurring close together with no return to consciousness in the intervals. The cervix was dilated with Barnes' bags, and after four hours a dead child was delivered by forceps. The attacks, however, continued with high temperature, dyspnea and complete unconsciousness. The left median cephalic vein was then opened and 600 grammes [a little over a pint] of blood drawn. Immediately the eclampsia ceased, the breathing improved, the temperature fell, the secretion of urine increased and the albumin in the urine grew less. The next day 500 grammes more were drawn. Soon after that the patient regained conciousness and recovery followed.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal.,
G. F. SHIELS, M.D., C.M., F.R.C.S.E., Surgeon Post-Graduate Department University of California, San Francisco. and
GEO. B. SOMERS, M. D., San Francisco, Cal.

Steam as a Hemostatic.—PROFESSOR SNEGIREW has used steam as a cauterizing and hemostatic agent in the treatment of uterine disease, in the following manner. After dilating the uterine canal, an application of steam was made through a small metal tube inclosed in a catheter. After a half, or at most, a full minute of this application, a dark fluid, with a strong brothy odor, returns through the catheter. In his experience, there has been no pain attending this application, and many cases of tender, painful and bleeding conditions of the uterine mucosa have been entirely relieved. Carrying out the suggestion from this use of steam, he conducted a series of experiments with DR. BLAGOWLIN, to determine the hemostatic value of steam upon the liver and other organs. Their results in animals were as follows: (1) They were enabled to remove, without loss of blood, such sized pieces of the liver as they chose, the animal surviving. (2) Similar results were obtained on the spleen. (3) They removed entire lobes of the lung without hemorrhage. (4) Considerable sized pieces of kidney were successfully removed. (5) From the brain, excision of pieces up to a limited size was possible. (6) Bleeding from the spongy portions of bones was stopped. (7) The marrow was scalded, but the restoration of the bone went on as usual. (8) The femoral artery of a dog, cut through either across its course or lengthwise, did not bleed under the application of steam. (9) The wounds, after the use of steam, healed by primary intention in animals, and also in men upon whom it was used. As a result of these experiments, steam was used as a hemostatic during the past summer in the Alexiner Semstevo Hospital with success in the following operations: (1) In five cases of resection of the knee-joint without elastic bands, ligatures or artery forceps. (2) In the extirpation of a cancerous breast, under the same conditions as above; also in the removal of fatty and malignant new growths in the skin. (3) In amputation of the cervix uteri and in fibromyotomy. (4) In resection of bone and in removing sequestra. (5) In abscesses, to render them odorless and induce rapid healing. (6) In fistulæ and sinuses, especially when tubercular.—*Boston Medical and Surgical Journal*, February 7, 1895.

Consultation in Fracture Cases.—Taken as a whole, there is, perhaps, no class of traumatisms which are apparently so simple and yet are oftener attended with unsatisfactory results than fractures of the extremities. The average graduate in medicine, on his entrance into general practice, is apt to be engrossed solely with the nature of the bone lesion, the quality of the fracture—whether simple, compound, or multiple, oblique, transverse, etc.—and unless he has had surgical experience, or has been specially warned, his efforts will be primarily directed toward securing immediate reposition and immobilization of the fragments. The possibility of anchylosis following, or injuries of the nerves, the blood trunks, or muscles, he may entirely overlook. He adjusts the dressings, splints, bandages, or apparatus, with an injunction that if severe pain is experienced, morphine should be freely given. But the tight bandage has gotten in its deadly work and gangrene follows in the way of peripheral sloughs, or, perchance, the whole limb is doomed. The patient may recover without any marked deformity, but the limb is paralyzed or a joint is hopelessly locked together by anchylosis. It is not generally known that with a limb, as with the whole body, violent concentrated force may kill it outright, while there are no marked traces of mutilation externally visible to the eye. The experienced surgeon, in serious traumatisms, will recognize this in an instant, and will predict results accordingly. But with one who has not had opportunities to examine many such cases, the chances are that he will commit the fatal error of immediately splinting; and when the black, cold foot or hand proclaims the death of the part and that mortification has commenced, he is invariably charged with having destroyed the limb. What shall one do in the average case of fracture in order to avoid error? Clearly his first move should be to secure the aid of a consultant. He should do this to protect his own reputation, as well as to fulfil his own obligation to his patient. The sacrifice of a limb through the ignorance or carelessness of the surgical attendant, is indeed a very serious matter, which the profession, as well as the courts, is always ready to condemn and punish. For, however harsh it may seem to the unfortunate defendant, it should never be forgotten that when expert knowledge is called for, the testimony submitted should be solely in the interest of truth and justice, regardless of who is the sufferer in consequence.—*Medical and Surgical Reporter*, December 8, 1894.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

So-called "Choked Disc."—In reviewing the theories of choked disc, Dr. Elsching says that it is merely a clinical term for cases of optic neuritis where the summit of difference of the discs equals two or three dioptres. The author examined 21 cases of cerebral tumors, 28 inflammatory cerebral affections, especially syphilitic, and 6 cases of increased intracranial pressure from hemorrhage or edema. Evidence of inflammation was found in every case. The increased volume of the disc is chiefly due to inflammatory changes, edema, diffuse hyperemia, hemorrhage, effusion, etc. In older cases where atrophy is going on, the new connective tissue accounts for what swelling there may be. Peri-neuritis is frequently found. An ampulliform extension of the intervaginal space is only met with in half the cases. In no case in which the disc was inflamed was the optic nerve free from signs of inflammation. Against all mechanical theories as to the origin of choked disc is the fact that damming up of fluid in the intervaginal space has no effect on the circulation of the disc; in typical choked disc this damming may be absent; edema of the optic nerve trunk is often absent; evidence of compression of the central vessels of the optic nerve is regularly wanting. Again, in typical cases of increased pressure from cerebral tumors there may be no trace of edema of the disc, but plenty of evidence of inflammation. Increased intracranial pressure is not an essential condition in the production of intraocular optic neuritis; moreover, the lymph stream is centrifugal in direction. The only point determining the presence or absence of choked disc in optic neuritis, seems to be the behavior of the lamina cribrosa. In choked disc it is nearly always pressed forward, becoming convex, and no doubt has considerable influence in producing the ophthalmoscopic and anatomical picture of choked disc, but is probably not the real cause, which yet remains to be discovered. Whatever the cause may turn out to be, the author thinks it cannot be mechanical.—*Wien. klin. Woch.—British Medical Journal*, February 16, 1895.

Cork Splints for Deflection of the Nasal Septum.—Dr. T. P. Berens reports excellent results from the use of a simple device for a splint in cases of fracture or operation for deflected septum nasi. The plugs of cotton or oakum become too readily foul, while the various supports which have been used have many disadvantages, the soft rubber tubing being too yielding, while the hard rubber or ivory plugs cause too much pressure and pain. Dr. Berens' device to overcome these and other difficulties is as ingenious as it is simple. He makes his splints from cork in the following manner: A selected cork (pint bottle size), in average length $1\frac{1}{4}$ inch, in breadth at its broad end $\frac{3}{4}$ of an inch, at its narrow end $\frac{1}{8}$ to $\frac{1}{4}$ of an inch less, is whittled to the shape of an almond with the point cut off, and flattened on the side that is to lie against the septum; the opposite side, near its lower border, is slightly grooved for the reception of the inferior turbinated body. A nasal burr or trephine is now used to hollow the splint, leaving the shell $\frac{1}{16}$ to $\frac{1}{8}$ of an inch thick. A rat-tail file, a small-bladed knife, or red-hot metal may also be used for this purpose. Sand paper is employed to smooth both the inner and outer surfaces, and the whole splint is coated with flexible collodion, to which has been added iodoform in the proportion of 30 grains to the fluid ounce, allowed to dry, when it is ready for use. The making of the splints requires no especial mechanical skill, and they can be modified with ease to suit the peculiarities of each case; their cheapness and elasticity, combined with efficient firmness to support the septum; their durability and non-conduction of heat and cold, and non-interference with free circulation of the blood; the ease with which they can be cleaned *in situ* by washing out with peroxide of hydrogen and boracic solutions, followed by an oily spray, as benzoinol; and the length of time they can be worn without pain, discomfort, or severe ulceration are the features that specially recommend them.—*Boston Medical and Surgical Journal.*

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. Simmons, Jr.. M.D., Sacramento, Cal.

Inoculability of Cancer.—Gratia and Lienaux have attempted to produce carcinoma experimentally in dogs by inoculating the animals, sometimes with small pieces of carcinomatous tissue, sometimes with the expressed fluid or scrapings. The results were wholly negative, whether connective tissue, serous cavities, mammary glands, lymph glands, testes or veins. The experimenters concluded that the parasitic character of cancer is not shown conclusively, that direct or indirect contagion is also not shown, except, perhaps, where especial predisposition exists; for example, in a person already infected with cancer; and that the etiology and pathogenesis is not known.—*Bul. del Academie Roy. de Med. Belgique*—*Boston Medical and Surgical Journal*, May 16, 1895.

Treatment of Gonorrhea.—Dr. M. Harovitz states (*Centralblatt f. die Gesamnte Therapie*) that during the first few days after the appearance of the symptoms a local application of a 10 per cent. solution of silver nitrate through a short endoscope, after a preliminary cocainization of the urethra, this repeated the next day, and later followed by an astringent injection, has resulted in a few cases in cure. In very sensative urethras a 2 per cent. solution of potassium permanganate may be successfully substituted for the silver nitrate. As an injection, various remedies are useful: Zinc sozoiodolate (1-2:100); zinc sulphocarbolate (0.5-1:100); potassium permanganate (0.05-01:100); silver nitrate (0.1:300); corrosive mercuric chloride (0-01:300), and ichthyol (5:100). Solutions of resorcin, which are brought into contact with the mucous membrane a sufficient length of time, produce an exfoliation, and thus lead to an evacuation of the gonococci. The injections should be used for three or four weeks, three or four times a day, and the solution retained in the urethra for one or two minutes. Later the number of injections may be diminished. With lessened discharge, the 3 per cent. alum or 1 to 2 per cent. tannin solution, to which red wine has been added, will be found useful. A watery and persistent discharge may be successfully treated by aqueous suspensions of bismuth subnitrate, salol or iodoform. In posterior urethritis local treatment to this portion of the canal is necessary. Dittell's or the modified Lallemand caustic carriers, or the Durtment syringe of Tommasoli are useful.—*Centralblatt f. die Gesamnte Therapie.*—*American Journal of Medical Sciences*, May, 1895.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Picrotoxin as an Antisudorific.—SEMMOLA and GIOFFREDI report the case of a lady 43 years old who had an attack of influenza in December, 1893, with high, persistent fever, headache and slight cough. During the long convalescence she began to suffer from sweating, which came on after the least exertion, and gradually increased until the sweat poured off her in rivulets. Together with this hyperidrosis she had dull red patches on the skin, which were more or less persistent. There was no noticeable alteration either subjectively or objectively in the nervous system. There was a slight systolic murmur at the apex, and some accentuation of the second sound of the heart in the pulmonary area. Atropine, agaricin, camphor, gallic acid and other antisudorifics were tried, but with no effect. Semmola concluded that the sweating was due to a vaso-motor paralysis, produced by the action of some influenzal toxin upon the vaso-motor center in the bulb. The presence of the dull red patches on the skin offered comfirmatory evidence of this diagnosis. Since picrotoxin has a stimulating action on the vaso-motor center, Semmola administered this drug twice daily, in doses of half a milligramme each. The result was highly satisfactory. The sweats gradually diminished, and in eight days had entirely disappeared.—*British Medical Journal*, March 2, 1895.

Treatment of Influenza.—PLICQUE adheres to the division of influenza into the thoracic, nervous, gastro-intestinal and cardiac varieties, but points out that the different forms may be combined together or follow one another. Treatment should first be prophylactic. When several members of one family are attacked they should be isolated in different rooms, since, when together, they appear to infect each other. In common cases without special complication, the patient should keep his bed for two or three days, and his room for not less than eight days; otherwise relapse and nervous complications are liable to arise. The medicines recommended by Plicque are antipyrin grs. xxx to ʒi, tincture of aconite gtt. x to gtt. xxx *per diem*, quinine and coffee. Antiseptic treatment to the nose, mouth and pharynx is important; boracic acid gargle, boracic vaseline to the nasal cavities, and great care of the mouth. For the spasmodic cough in thoracic complications he recommends: Tinct. belladon., tinct. aconit., tinct. droseræ, āā m. xxx; tinct. myrrhæ ʒiiss.; dose, m. xx to m. xxx *per diem*. Congestion of the lungs may be relieved by dry cupping; blisters should be avoided. In respiratory catarrh, emetics and chloral hydrate of ammonia are useful. Nervous complications with excitement are best treated with bromide of potassium; for those associated with depression he recommends equal parts of tincture of kola and coca. For the cardiac form he advises dry cupping, sinapisms, subcutaneous injections of caffein and ether, or of camphorated oil. In the gastro-intestinal variety, emetics and saline purgatives are beneficial in young subjects at the outset; if there is much diarrhea, intestinal antiseptics such as salol, naphthol and salicylate of bismuth are indicated. During convalescence high altitudes are better than sea air.—*British Medical Journal*, March 2, 1895.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

A New Diagnostic Sign in Carcinoma of the Stomach.—It is held by many recent writers, says FRIEDENWALD, that lactic acid is a normal constituent of the gastric contents. This view. however, has been nullified by the investigations of Boas, who maintains that lactic acid is absent in normal conditions and that Uffelmann's test, heretofore relied on for demonstrating its presence, is unreliable. In a recent communication from Boas' polyclinic, Oppler brings forward the following new observations concerning the production of lactic acid in cancer of the stomach: (1) Lactic acid is found in the gastric contents in large quantities in those cases of cancer in which marked motor disturbance is associated with an absence of free hydrochloric acid. In these cases sarcinæ are always present. (2) Lactic acid is never found when the motor function is disturbed and free hydrochloric acid is present. Sarcinæ are found in these cases. (3) Lactic acid is never found when the motor function is disturbed and free hydrochloric acid is present. Sarcinæ are found in these cases. Friedenwald examined 29 cases in all. In every case the stomach was thoroughly washed before a flour test meal of Boas, consisting of a litre of flour soup (one tablespoonful of flour to the litre of water) was given. The stomach was expressed of its contents at various intervals (5 to 60 minutes), so that every period of digestion was studied. From these experiments it is conclusively shown that, under normal conditions, lactic acid is never produced during any period of digestion after the introduction of carbo-hydrate food into the stomach. He further concludes that lactic acid is not formed during digestion in the normal or in the diseased stomach, except cancer, but that in this disease it is usually produced in great quantities. Uffelmann's test is to be relied upon only in those cases in which the reaction is very marked and decided, and never unless the stomach has been previously carefully washed and a simple flour test meal carefully injected.—*New York Medical Journal*, March 23, 1895.

The Etiology of Black Tongue.—J. SENDZIAK reports two cases showing this condition. By culture investigations and microscopical examination, he discovered the presence of a fungus almost identical with the *Mucor niger*. To this fungus is attributed the condition known as black tongue. His observation confirms the conclusions of Ciaglinski and Hewelke.—*Centralblatt f. Bakteriologie u. Parasitenkunde.*

Vitality of the Typhoid Bacillus.--According to UFFELMANN (*Cent. f. Bakt.*) typhoid bacilli resist drying for a long time. The bacilli retain their vitality in a dry state for many days—on ordinary earth, 21 days; in street sweepings, 30 or more; in sand, 82 days; on wood, 32 days; on linen, over 60 days. In a moist medium, it is probable they would retain their power of growth much longer. The same investigator proves that typhoid bacilli may be carried by the air, as well as by clothing, and that they are thus capable of infecting milk, water and various food stuffs. Uffelmann distinguishes the typhoid bacillus by carefully noting the movements of the microbes, and the shape of the colonies. The bacilli do not induce fermentation in 2 per cent. lactose gelatin. Their growth upon methyl violet gelatin is also characteristic.—*Medical and Surgical Reporter*, January 26, 1895.

The Treatment of Miliary Tuberculosis with Guaiacol.—BARD, LEPINE and others, have shown that the antipyretic action of guaiacol does not improve the health of consumptives with cavities; whereas, better results are attained in limited miliary tuberculosis. The following conclusions, based on the treatment of 4 cases, are formulated: (1) The antipyretic action of guaiacol is rapid and lasting in miliary tuberculosis. (2) The effects on nutrition are pronounced. (3) When erythema, hypothermia and a tendency to collapse occur, as a result of using guaiacol, the cause must be attributed to impurities in the preparation, and not to the drug, itself. Its positive indication is tuberculous fever; its contraindication is hectic fever. It is given in doses varying from 8 to 30 grains at each application. The following mixture, with a view of producing the greatest tolerance, is prescribed. Equal parts of chemically pure guaiacol and sweet almond oil. The backs of the hands are painted with this mixture, and immediately covered with cotton, which is kept in place with a bandage.—*Journal des Praticiens*, January 12, 1895.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

The Paroxysmal Sleep.—DR. CH. FÉRÉ, in an interesting article on this subject, says that paroxysmal sleep differs from normal sleep in this: that while the disposition to fall asleep in the latter instance develops gradually and at certain times, and, furthermore, is accompanied by prodromes; this tendency may, under pathological conditions, make its appearance quite suddenly, without premonition, so that the individual becomes prostrated in a moment. The pathological conditions in question are various circulatory and digestive disturbances, diseases of the heart and liver, diabetes, gout, renal calculi, lipomatosis, hysteria, epilepsy, and neurasthenia. This pathological sleep was termed "narcolepsy" by Gélineau, in 1881. The patient falls suddenly as if in an epileptic attack, and remains in deep stupor, from which no stimulant can rouse him. The narcolepsy may be a sleep of an epileptoidal nature; it may happen to the patient at the table, while he is at work, when he is walking on the street, etc. Lasègne reports a case in which a waiter, 15 years old, suddenly fell asleep while serving, and standing, slept a minute with a glass in his hand, after which he awoke and continued the serving. In another case the person in question slept in a standing position on the street, leaning against a lamp-post or a wall, with a basket of crockery on his back. Sometimes the sleep does not begin so suddenly. Some patients have the ordinary prodromes of sleep; besides the symptoms emanating from the brain the gait becomes difficult and heavy; sometimes they stagger as if intoxicated, the speech becomes slow, the voice feeble. Occasionally the sleep develops before they have had time to sit down, or to select a place for themselves. The sleep may last from a minute to several hours; the average is 10 minutes to a half an hour. The frequency of the attacks varies greatly. Sometimes they are at first very far apart, but as a rule they show a tendency to gradually increase in frequency. In some patients they occur once a week, once a month, or at greater intervals; in others again they occur once or several times daily. In one of the cases reported by Gélineau the attacks had been as frequent as 200 times daily. A patient, reported by Caffe, awoke to fall asleep again immediately. Sometimes the patients work in a standing position to prevent them from falling asleep. A patient under the observation of the author falls asleep whenever he leans against anything in the room. The attacks may be produced in a variety of ways; thus, walking, or some other muscular exertion, defecation, coitus, an emotion may induce the attack. Some patients are especially sensitive during the raging of a thunder-storm. The paroxysmal or periodical sleep is a profound sleep, in which one finds all the characteristics of the normal sleep intensified. The extremities are completely relaxed, the sensibility considerably diminished, so that neither shouting nor intense mechanical stimulations will wake the patient. The sleep is devoid of dreams. The respiration is often very slow, may become reduced to 10 or 12 a minute; the pulse is also retarded (as low as 50 a minute). The pupils are as a rule dilated, and do not contract even if the patient be exposed to strong sun-light. The awakening takes place after a shorter or longer time, and the disturbances in mobility, sensibility, and intelligence are more or less continuous, according to the profoundness and duration of the "narcoleptic sleep." The patients who sleep but a few minutes are able to resume their occupation at once, those who sleep for some time are for a while unsteady in their movements, their sensibility is diminished, and their intelligence dulled. These patients sleep as a rule well at night; it is only exceptionally that insomnia is present. Narcolepsy is neither a neurosis nor a disease, as some writers have tried to make it; it is met with, as has already been said, in a number of pathological conditions. It may be the result of a severe attack of indigestion in people who eat and drink to excess; in such cases it often sets in with great regularity, the sleep occurring at certain times just after meals. Depaul reports a case in which a woman in labor fell into a periodical sleep during each pain. In hysterical and neurasthenic people hunger may be the cause of the phenomenon; a neurasthenic, who suffered from vertigo just before meals, sometimes fell into a profound sleep, lasting 15 to 20 minutes, at the moment he would seat himself at the table, whenever business would delay his eating 30 to 45 minutes. The periodical sleep never showed itself in this patient under any other circumstances. Narcolepsy occurs in patients suffering from rheumatism, obesity, renal calculi, and diabetes; in this latter disease the sudden sleep may perhaps be considered a "coma on a small scale." It is often met with in nervous families, emotions being then the exciting cause; in one case a local asphyxia of the extremities was present at the same time. In some instances it alternates with slight epileptoid or epileptic attacks; for this reason it is sometimes called epileptoid sleep. It is well known that epileptics have from time to time attacks of sudden sleep, varying in duration; Mendel, therefore, considers the paroxysmal sleep a form of masked epilepsy. Narcolepsy is often met with in hysteria, occasionally in general paralysis, and in dipsomania. In one of the cases published by Morton, the attacks were accompanied by ejaculation of semen; in another case, reported by Caton, by spasmus glottidis with asphyxia, the attacks repeating themselves at intervals of 5, 10, and 20 minutes. The periodical sleep occurs in people suffering from functional or organic heart disease. It is seldom that it makes its first appearance in childhood, and, excepting the hysterical form, it occurs most frequently in men. The paroxysmal sleep in hysteria is quite different from the real hysterical sleep, which as a rule develops gradually, and lasts much longer than the narcoleptic attacks. Narcolepsy is easily differentiated from the real hysterical sleep, just referred to, from the sleep of the negroes (nelavans or sleeping sickness), from Gerlier's vertige paralysant, and from nona. In making a differential diagnosis it is to be remembered that the paroxysmal sleep is met with in diseases causing a disturbance of the nutrition of the whole organism. While the prognosis is dependent upon the nature of the disease which it accompanies, it is in itself indicative of an unfavorable prognosis in the diseases in which it occurs. The therapy is a part of that directed against the disease causing it; the paroxysmal sleep has been especially benefited by hydrotherapy, electricity, baths in compressed air, and inhalations of oxygen.—*Sem. méd. Hospitalstidende.*

FORMULÆ.

La Grippe.—ANDREW H. SMITH, M.D., uses phenacetin with atropin and camphor in order to guard against depression and excessive sweating:

Phenacetin	gr. iiiss
Camphor	gr. ss
Atropine	gr. $\frac{1}{300}$

Make one pill.

S.—Two at the outset, followed by one every three hours.—*Medical Record.*

Gonorrhea.—VATIER recommends a combination of antipyrin and corrosive sublimate as an injection in gonorrhea:

Perchloride of mercury	1 part
Antipyrin	100 parts
Distilled water	10,000 parts

The injection should be used four times a day and retained as long as possible. The addition of antipyrin prevents smarting.—*British Medical Journal.*

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., San Francisco, Cal.

Mortality for April, 1895.—The deaths registered in 68 town districts of the State, during the month of April, in a population of 769,109, correspond to an annual rate of 15.12 a thousand, the total mortality having been 975. 58 deaths were due to zymotic diseases, giving an annual rate of .90 a thousand. Of these, 8 were due to diphtheria, 4 to cholera infantum, 22 to typhoid fever, 4 to diarrhea and dysentery, 13 to cerebro-spinal fever, 1 to whooping cough, 0 to croup, 1 to intermittent and remittent fevers, 0 to scarlet fever, 5 to measles, and 0 to small-pox. 286 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.44 a thousand. Of these, 168 were due to consumption, 77 to pneumonia, 34 to bronchitis, and 7 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.52 and .12, respectively. 82 deaths resulted from diseases of the heart, 1 from alcoholism, 2 from erysipelas, 48 from cancer, and 428 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 592,000, was 15.72. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from Los Angeles, the lowest from Berkeley.

METEOROLOGY.

Summary for April.—*Temperature.*—The normal temperature of the State for April is 57.7°; the average for April, 1895, was 57.9°, a departure from normal of +0.02°. The highest monthly mean was 83.9°, at Volcano Springs, San Diego county; the lowest, 34.0° at Bodie, Mono county. The maximum temperature was 108° at Palm Springs, San Diego county, on the 13th. The minimum, 5° at Bodie, Mono county. The greatest monthly range was 66°, at Tulare; the least, 22°, at Point Lobos. The absolute monthly range for the State was 103°.

Rainfall.—The normal precipitation for the State for April is 2.36 inches; the average for April, 1895, was 1.40 inches, a departure from the normal of −0.96 of an inch. The greatest monthly precipitation was 11.70 inches, at Bowman's Dam, Nevada county. The least, nothing at numerous places throughout the State.

Wind.—The prevailing direction of wind was west.

Unusual Features.—There was no unusual meteorological feature for the month of April.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for April, 1895.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	56.9	85	55.0	----	----	----	----	3.38	----	----	----	----	S.E.	Southern Pacific Company.
Berkeley .... "	52.0	72	40.0	63.0	47.0	16.0	5	2.30	86.0	19	4	7	S.W.	Obs. University of California.
Colfax .... "	54.4	85	35.0	----	----	----	0	0	----	----	----	----	NE.	Southern Pacific Company.
Eureka .... "	50.0	69	31.0	56.0	43.0	13.0	14	2.88	84.0	8	15	7	N.W.	Weather Bureau Dept. Agr.
Fresno .... "	60.0	92	34.0	73.0	47.0	26.0	3	0.99	59.0	5	6	19	N.W.	" " "
Independence.. "	57.0	80	28.0	71.0	44.0	27.0	1	T.	26.0	17	7	6	N.W.	" " "
Los Angeles .... "	59.0	82	41.0	69.0	48.0	21.0	6	0.46	74.0	10	10	10	W.	" " "
Monterey .... "	55.9	70	36.0	----	----	----	----	0.89	----	----	----	----	S.	Southern Pacific Company.
Napa .... "	58.0	85	39.0	69.0	48.0	21.0	2	1.11	56.0	14	9	7	S.W.	Station Napa Insane Asylum.
Oakland .... "	54.0	79	40.0	65.0	48.0	17.0	6	1.93	79.0	17	8	5	W.	Chabot Observatory.
Paso Robles .... "	55.0	82	31.0	68.0	43.0	25.0	3	0.48	58.0	19	6	5	N.	Southern Pacific Company.
Red Bluff .... "	59.0	93	36.0	70.0	48.0	22.0	7	0.34	58.0	15	9	6	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	58.0	86	41.0	68.0	48.0	20.0	4	0.86	66.0	11	15	4	S.W.	" " "
San Bernardino "	----	----	----	----	----	----	----	----	----	----	----	----	----	A. K. Johnson, M. D
San Diego .... "	58.0	81	44.0	66.0	50.0	16.0	2	0.11	79.0	15	11	4	W.	Weather Bureau Dept. Agr.
San Francisco.. "	55.0	73	44.0	62.0	50.0	12.0	6	1.24	79.0	15	10	5	W.	" " "
Santa Barbara.. "	58.0	78	43.0	66.0	49.0	17.0	3	0.46	72.0	19	1	10	W.	Hugh D. Vail.
Santa Cruz ...... "	57.0	79	36.0	68.0	46.0	22.0	3	2.02	----	18	4	8	W.	W. R. Springer.
Yuma ....A. T.	70.2	98	45.0	87.0	54.0	33.0	0	0	36.0	26	4	0	W.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: JUNE, 1895

AN UNFORTUNATE OCCURRENCE.

At the recent meeting of the State Medical Society in San Francisco an event occurred that is unprecedented in its history. It was found necessary to publicly reprimand a member of the Society in consequence of charges preferred against him by a member of the profession from another State. This should have ended the matter, but the gentleman in question, DR. WINSLOW ANDERSON, has seen fit in his journal to reflect upon the Society in a manner that is both unwarranted and untrue. Coming from such a source the indelicacy of criticism is apparent, but this is less important than the absolute misstatements contained in his comments. The following is the opinion of this gentleman on the action of the Society:

> At the hands of the Medical Society, or rather at the hands of the clique, the editor of this *Journal* received a censure for a letter he had hurriedly dictated, and which he had not taken the time to read over or sign. Among the officers who were elected by the famous car-load already mentioned was a majority of the Board of Examiners and Board of Censors. This majority of the Board of Examiners having come into possession of his dictated letter, sent it to the Board of Censors, and notwithstanding that the minority (two), Professor Washington Dodge and Professor Williamson, of the University of California, protested that they could see nothing unprofessional in the letter, and so reported to the Society, the majority (three) solemnly proclaimed the letter a serious menace to the dignity of the profession. As the Chairman of the Board of Censors could choose his own time to make his report, the time chosen happened to be, by accident or design, when the clique was present in force and the editor's friends had left the hall for dinner. But, perhaps the merit of the letter can be best conveyed by quoting the language of one of the gentlemen who voted to censure the "editor," viz: "There was not a d—— thing in the letter, but we were bound to cinch Anderson." Perhaps the medical men of the State of California can afford to be represented by the class of men who constitute this clique, and perhaps they cannot. Perhaps the gentlemen who constituted this

majority of the Board of Examiners and Board of Censors can afford to "cinch" members of the Society at the dictation of a boss and perhaps they cannot.

DR. ANDERSON affects to believe that this was the action of a clique in the Society, notwithstanding that the sentiment of the members present was finally expressed by an overwhelming majority. The very small minority of nine being made up of members from the faculty of the University, personal friends, and, we understand, the gentleman himself. On this occasion the members present were from all parts of the State, and were quite as representative a body as is ever found at a meeting of the State Society. DR. ANDERSON states that a majority of the Board of Examiners having come into the possession of his letter, sent it to the Board of Censors, where, in spite of the opinion of the minority, the majority of three "solemnly declared the letter a serious menace to the dignity of the profession." This is absolutely untrue. Upon receiving the letter the Board of Examiners very properly, and as a matter of courtesy, referred it to the faculty of the University of California. The faculty having considered the communication, voted to censure DR. ANDERSON, though this course was adopted in the face of strong protests by members who felt that something more than censure was demanded on such an occasion. That such a course was taken by his own faculty sufficiently refutes the charge that the action of the Society was dictated by a clique. As any member of the Society must be aware, the Board of Examiners has no authority to refer communications to the Board of Censors. The Board of Examiners sent the letter to the Society in connection with its annual report, and by the Society it was referred to the Board of Censors for action, under the provision contained in the Constitution for such occurrences. The majority of the Board of Censors supposed to be governed by the clique were W. F. CHENEY and T. B. DE WITT, of San Francisco, and R. F. ROONEY, of Auburn. DR. ROONEY was appointed by the PRESIDENT to fill a vacancy in the Board caused by the absence of DR. SANDERSON, and therefore had nothing to do with the clique, while DR. CHENEY and DR. DEWITT will certainly not be regarded by impartial critics as under clique domination. As for the minority, "PROF. WASHINGTON DODGE and PROF. WILLIAMSON, of the University of California," if any criticism were applicable in this matter it would certainly fall on these gentlemen, who are members of the faculty under which Dr. Anderson holds a position. It would therefore have seemed best to have left them out of this discussion. As for these gentlemen protesting that they saw nothing in the charges, it may be mentioned that they concurred with the majority as far as professional sentiment was concerned, and would probably have voted for something more serious than a reprimand, but feeling, as it was expressed, that the action taken by the majority of the Board would probably come to naught, and might therefore be twisted into a vindication, they deemed it best to drop the matter.

Dr. Anderson insinuates that the time chosen by the Chairman of the Board of Censors was "by accident or design, when the clique was present in force." This is also untrue. When the matter was presented two motions were made to postpone its consideration, one until the evening session of that day, the other until the following morning. A member on the floor of the house then stated that Dr. Anderson was present and was ready to proceed with the matter, and in accordance with this a motion was made and carried that the matter be taken up after a few minutes interval. There was nothing to prevent its postponement except the expressed desire of the gentleman concerned, against this action. Dr. Anderson, on being heard in his defence, severely criticised the Board of Examiners for having given publicity to his letter before it had reached the Society. He stated that a copy of it had been shown him by a reporter of the San Francisco *Examiner*, and this he regarded as an outrage. In reply, Dr. A. H. Pratt, of Oakland, the Chairman of the Board, protested that it was impossible for the publicity to have occurred while the letter was in possession of the Board, and Dr. C. C. Wadsworth, the Secretary, stated that the matter of which Dr. Anderson complained had actually occurred while the document was in the possession of his own faculty. Now, in the face of these denials which can be amply substantiated, Dr. Anderson writes "let us hope that no Board of Examiners will ever again betray its trust by allowing strictly professional and confidential correspondence to find its way to the public press so that its publication might injure a fellow member of the Society whose interests they were elected to protect." The insinuation contained in this sentence is certainly contemptible, implying as it does, that the Board of Examiners gave out the letter for publication deliberately and with malicious intent.

This whole matter has been a very unfortunate one, unprecedented in the history of the State, and should have been dropped without any comment. We adopted this course, believing it to be the proper one, but the publication of a series of falsehoods as well as charges and insinuations by the one, of all others, from whom common decency should demand absolute silence, necessitates placing the truth before the profession.

VALE INDEX MEDICUS.

It is with very great regret and no little astonishment that we learn the *Index Medicus* has been discontinued. Reading members of the profession have from time to time been informed that this publication was not a financial success, and, on more than one occasion, the statement was made that it must suspend unless more liberal support was forthcoming. Efforts were made by those interested in this invaluable work, but they seem to have been insufficient, and early this year MR. GEO. S. DAVIS, the publisher, definitely announced that, unless the subscription list materially improved, or, in other words, unless the annual deficit was reduced to reasonable proportions, he would positively discontinue its publication. Renewed efforts were made by its friends who especially urged the plan of subscription by medical societies as the most feasible one. There was a material increase in the income, but it was insufficient, and under date of May 25th MR. DAVIS informed us that he had decided to suspend publication.

From January, 1885, when he took charge of the *Index*, it has been published at an annual loss of from $500 to $1,000, generously contributed by the publisher to the medical profession. This represents a larger sum than has been contributed by any professional man or body of professional men for this purpose. Owing to the hard times of 1893, the subscription list, always small, greatly decreased, and difficulty was found in making collections from subscribers. The deficit in that year was a very material sum, and was largely increased in 1894. The announcement was then made that unless the publication could be placed upon a paying basis it must be discontinued. Many of its friends appealed to the publisher to defer action until an organized effort was made to increase the income, but after six months it was found that the prospective deficit for 1895, assuming that all subscriptions were collectable, would be nearly $2,000. MR. DAVIS stated that if the deficit were reduced to the original figure of $500, he would personally contribute that amount; but even this seemed to be impossible.

It has been stated that "the suspension of this most valuable periodical is a national misfortune; it is moreover a disgrace to the medical profession of the country;" and this is certainly fair criticism. During the years of its existence it has been freely and constantly used by readers and scholars in the profession. Representing as it does a current record of everything published in the medical universe, it was indeed unique. It was creditable to the American medical profession and to American scholarship, and it should never have been allowed to perish for want of support. It is likely that an effort will be made to supply its place, but if the period ere the establishment of a substitute be long, a gap will exist in our scientific records that will be a serious bar to systematic research.

Complaint has been made that the yearly subscription price of $10 was a bar to its success. This, we believe, had little to do with its failure; a reduction to one half that figure would not have resulted in a gain of more than one third in permanent subscribers. Probably the better plan would have been to increase the price to $20 if necessary, maintaining the promise always made by MR. DAVIS that when the revenue was sufficient to meet the expenses, a proportionate reduction would be made. The three sources from which the income for its support can be drawn are those interested in literary work in the profession, medical journals, and medical societies. It is to the latter source that we have always directed our efforts, and we believe that in the societies lies the best hope of future success in anything of this kind that may be undertaken. Meanwhile, MR. GEO. S. DAVIS certainly deserves the hearty thanks of the profession for his continued efforts in its behalf, and for his very liberal donations to medical and scientific research.

NOTES.

The New Medical Register.

The seventh edition of the Official Register and Directory of Physicians and Surgeons in the State of California has recently been issued by the Board of Examiners. The main plan of the work as adopted in former issues has been followed, but certain changes have been made which we believe will, on the whole, be found acceptable. In order to keep the volume within reasonable proportions the matter has been set solid throughout, thereby greatly condensing it. That which has hitherto been known as the classification by counties of the physicians contained in the register proper has in this issue been termed "A Directory of Physicians and Surgeons." Under the different counties the names of the local practitioners have been arranged alphabetically, and in the larger towns, wherever obtainable, the street number has been given. This new feature adds considerably to the value of a work which for several years we have regarded as indispensable. There are numerous typographical errors in this edition, but these, like the errors in the location of licentiates, are, no doubt, difficult to avoid in the constant changes necessitated by late corrections as the work is going to press.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, April 23, 1895.

The President, C. B. NICHOLS, M.D., in the Chair.

New Members.—P. C. CAMPBELL, M.D., of Elk Grove, and F. M. REITH, M.D., of Sacramento, were duly elected members of the Society.

Bassini's Operation for Radical Cure of Hernia.—DR. T. W. HUNTINGTON, exhibited a case in which he had performed Bassini's operation with Halstead's modification. After securing the blood vessels, the sac was isolated and tied at the highest possible point. The structures forming the spermatic cord were then lifted out and the floor of the canal formed by suturing the border of the rectus and the edge of the internal oblique and transversalis fascia to Poupart's ligament under the cord. The border of the external oblique is then attached to Poupart's ligament over the cord, thus forming a new canal. This method was more complex than the one he had used heretofore, but the result was very gratifying.

DR. W. E. BRIGGS read a paper entitled "Glioma of the Eye, with a Report of Two Cases."

DR. D'ARCY POWER said: Carter reports a case in which both eyes were affected at birth, one being removed. Four years after, the child died and, on examination, a glioma was found in the remaining eye, yet the optic nerve in the eye that had been removed was not affected.

DR. J. H. PARKINSON said the important point for the practitioner is to watch for the early symptoms and, if suspected, have the case at once examined by a specialist. We all realize how hopeless is the treatment of such cases. To recommend to any parent the enucleation of both eyes of a child is an utter impossibility. Even if recovery were possible, the prospects for the after life of the patient were hardly encouraging.

DR. F. B. SUTLIFF said: The idea of suggesting the enucleation of both eyes is a hard one to carry out. He thought the best thing, if the disease had been recognized, was to say nothing about it until it was very obvious. If recognized and the diagnosis confirmed, he would inform the parents that the child would lose its eyesight, but would not offer to do anything for such a case.

THE PRESIDENT said, in regard to the second case reported by Dr. Briggs, that he had been called in, and advised them to do as the doctor had told them. A "faith curist" came along about that time and said the child could be cured without the removal of the eyes. Some time later he was called in suddenly one day and found the child suffering from meningitis and marasmus. It died very shortly afterwards.

DR. BRIGGS, in replying, said: The prognosis is very unfavorable, as these cases are not seen early enough and the parents will hesitate until it is too late for an operation to do any good. Some say that in the case of an early operation the prognosis is hopeful. The cellular element of the growth is a reproduction of the granular cells of the retina, and like the round-celled sarcoma of any tissue; in fact, the same as any other sarcoma. Glioma will also originate in the brain, but this is much rarer. The early diagnosis of single glioma was of particular interest. In such a case he would not hesitate to enucleate both eyes, and if it returned in the brain it would not be so bad, as it would be more satisfactory to the parents, the fungated mass of disease being absent.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, April 9, 1895.

The President, C. C. WADSWORTH, M.D., in the Chair.

Rest in the Treatment of Joint Injuries and Joint Diseases.—DR. C. G. KENYON read a paper upon this subject. He said the department of surgery involving the care of joints is one of importance, and, in directing the attention of the Society to it he would take up especially the matter of anchylosis or stiffness of the joints, the result of injury to the parts themselves or to continguous osseous tissue. He had already expressed himself upon this subject, taking the position that the best and surest course to pursue to obtain motion in an inflamed joint is to abstain from moving it; in fact, to secure, as near as possible, absolute rest. He had seen nothing since to shake his faith in the correctness of the conclusions expressed in his "Report on Surgery" to the Medical Society of the State of California some few years ago, in which he had taken the ground that passive motion was an unnecsssary and painful procedure, retarding recovery, if not, ultimately, preventing it. This question of passive motion was one of great practical importance to every surgeon. Ought we or ought we not use passive motion in false anchylosis resulting from injury to a joint or for stiffness resulting from the fixed dressings? Both courses cannot be right. If 80 per cent. of the profession follow the routine practice of passive motion in the treatment of fractures involving the joint, the speaker felt justified in again expressing his opinions upon the subject. He mentioned two cases in his practice bearing very strongly upon this subject. In the first, a boy, with an anchylosed elbow in a semi-flexed position, and of some months standing, was treated under anesthesia, by forcible flexion and extension. This was repeated, and a splint was applied with an adjusting screw, motion being kept up for some time. This was finally delegated to his physician, with the result that the joint is permanently stiff. The second case was similar in every respect; the same course was followed, but for some time the boy remained away from the office, and on being again seen the speaker was surprised that the joint had improved by non-interference. Regular exercise of the joint was again resumed, but finally desisted in, being opposed by patient and parent. The splint was allowed to remain in position, and complete recovery took place through non-interference. The amount of suffering endured in the forcible exercise of stiffened joints in carrying out a delusive theory, that is almost universal, is prodigious, as force is always injurious, retarding the physical restoration of the inflamed joint. As the result of his experience he submitted the following propositions: (1) Passive motion, either under anesthesia or without, does not accomplish the desired object. (2) Free voluntary movement is all that is necessary for the parts after healing under the influence of complete rest obtained by fixed dressings. There is no lesion that produces more stiffness than a fracture of the patella. The long course of treatment necessary to insure strong and safe union leaves the knee-joint fixed. Notwithstanding this, in several cases that had occurred in his practice, complete motion had resulted in time without any manipulation whatever. In common with other practitioners, he had formerly believed that it would be unsafe to put up a fractured femur for ten or twelve weeks without using passive motion of the knee to prevent stiffness. He now knew this was unnecessary, and he had not "exercised" a stiffened joint for a great number of years and had not had any stiff joints as a result. Following the teaching of Dr. L. C. Lane, he always dressed fractures near the elbow joint in the straight instead of the flexed position, and when healing had taken place he relied entirely upon passive motion to overcome the inevitable stiffness. In no case had the result of this plan been other than satisfactory. If there be the smallest amount of motion in the joint, and that little will be always found to exist, time will do the rest. He believed the tendency in all lesions of the osseous structures of the extremities was to take the dressings off too early. In his opinion, the rule to be followed was to keep the injured member at complete rest until the last vestige of inflammatory trouble had disappeared. Motion will then come in good time without any interference on the part of the surgeon. In the treatment of open joints, next to asepsis and antisepsis, nothing is of so much importance as rest, or, in other words, complete fixity in the dressings. The speaker then reported several cases that had recently occurred in his service at St. Luke's Hospital, showing that complete restoration to function of a joint may take place even after osseous, cartilaginous or tendinous structures have been lost.

DR. G. F. SHEILS said: Dr. Kenyon has reported some remarkable results, yet notwithstanding these, I should hesitate to discard passive motion. The term is often misunderstood. To place the patient under an anesthetic and to break up tissues is wrong, but gently beginning and gradually increasing the movement seems to me the best possible treatment. If left too long immovable the cavities or joints will fill up with new tissue and you cannot get any motion. The surgeon must be guided by the joint affected and other conditions in any given case.

DR. W. F. MCNUTT said: Hilton's book, in which he dwells upon the advantages of rest, is a thoroughly good one. Rest in inflammatory conditions, no one gainsaid. Passive motion, after the inflammation has ceased, depends upon the character of the case. If the fracture extends into the joint, perhaps not, if near the joint, and if the joint be stiff from inflammation and effusion, there is no question as to the value of passive motion. In a patient 5 years of age, with a stiff knee, he had given chloroform, breaking up all the adhesions, and obtained a very useful joint. He favored the glue bandage to fix the joint.

DR. J. ROSENSTIRN said he was astonished at some of the views expressed. Absolute rest of injured joints and bandaging of broken bones, he thought, had been abandoned long ago. In cases of Potts' fracture, after two or three weeks he removes the splints and begins passive motion. In injury to a joint the hemorrhagic synovitis is absorbed in a week. The longer adhesions were allowed to remain the more firm they became. What, then, was the reason for waiting? He thought Dr. Kenyon's patients had carried on a sort of passive motion for themselves by gradually trying to move the joint.

DR. G. W. DAVIS said: The therapeutic influence of rest was important. He recalled the advice of Hamilton and others as to use of the parts, and the importance of passive motion. He had since concluded that it is often employed too early. Gentle massage should precede passive motion. Perfect mobility is very important in commencing tubercular arithritis. He mentioned a case where the too early use of passive motion in a fracture of the olecranon delayed the use of the arm, but after a long time passive motion produced a useful elbow. In another case he first used the rubber bandage until the swelling had subsided, and then applied a plaster of Paris bandage, which was continued for a long time. There was no relapse, and the case progressed favorably.

DR. C. E. FARNUM did not think it profitable to the Society to enter into the discussion of so general a subject as rest or immobilization in the treatment of fractures extending into joints. Regarding immobilization or its opposite in treatment, communicated or passive motion, any person of experience in the treatment of fractures would treat the different fractures of different joints very differently, and would even treat the varying conditions occurring in fracture of the same joint differently. For instance, no one would treat in the same manner, as regards immobilization or early passive motion, fractures involving the elbow, shoulder, knee, ankle and finger joints. While some urge, as routine practice, early passive motion for the treatment of fractures extending into the elbow joint, yet very few, if any, would advise similar treatment for fractures involving finger joints. In the treatment of joint traumatisms or fractures, results will ordinarily depend more upon the particular relations, one to another, of bone fragments and joint surfaces being restored and maintained, than upon immobilization until good union has taken place, or treatment by early communicated movements. This is especially true of fractures extending into the elbow, wrist, knee and ankle joints. At the meeting of the American Surgical Association in 1891, Dr. Lewis A. Stimson, of New York, read a paper on the treatment of fractures of the humerus, involving the elbow. In considering the cause of limitation of motion after these injuries, he combated the idea that immobilization is, in itself, a cause of anchylosis, and argued that it is the most efficient agent we possess against the inflammation that is the primary cause of the stiffness. The speaker said he had given this article to Dr. Kenyon, who had to-night reported results corroborative of the claims made by Stimson. He had, himself, treated some fractures at the elbow joint with immobilization, and had had good results. The arguments against the use of passive motion at an early stage, in fractures involving the elbow joint, as advanced by Stimson, and formerly by Verneuil, Sands and others, and supported by many modern authors, appeared to be logical and safe to adopt as routine treatment. The experience of the past, however, teaches us that early passive motion at the elbow joint, after fracture, gives almost uniformly good results in the hands of those who use it judiciously and gently, having first reduced the misplaced fragments to their normal relations. The daily movement of joint surfaces has, in some cases, the effect of restoring to their normal relation parts that have been altered in consequence of swelling, accidental movements or inefficiency of the dressings. By judicious passive motion is meant, not a forcible movement that separates united and partially united tissues and greatly increases inflammatory action, but a gentle movement so slowly begun and slowly made in the normal direction, that the motion is barely discernible, and requires considerable time for its completion. It stretches instead of tearing the freshly united tissues. Such movements can very rarely be harmful. It is claimed that such movements, after fracture of the elbow joint, instead of increasing the inflammation and thickening, actually diminished it. The proper time to commence this motion was important. It should not be undertaken until the fragments are pretty well united. Experience had led him to the opinion that, in treating fractures of the elbow joint, if movement was not undertaken early, it is best to avoid it altogether, and when union has taken place to permit voluntary movements on the part of the patient. In conclusion he recommended early communicated movements by skilled hands, yet these were almost valueless or even harmful when employed by the unskilled.

Dr. J. H. Barbat said: The cause of anchylosis was inflammatory deposits around the joints. In such cases, massage and gentle movements hasten the result.

Dr. C. G. Kuhlman said: Some years ago Herophilus, of Alexandria, had laid down certain precepts in the treatment of injuries of joints, namely, "replace and retain until cured." Since then these precepts have been closely followed, perhaps unconsciously, by all conservative men and by modern practitioners. He did not agree with Dr. Rosenstirn that there was no essential difference between a fracture of the shaft of a bone and of the bones forming a joint, because fracture of a bone forming a joint always involved the cartilages and synovial membranes, structures easily destroyed, but extremely slow in restoration to function, owing to very low vitality. Passive motion of joints or bones that are thus denuded, within two or three weeks after injury, as the doctor says he does, is hardly compatible with the natural laws governing repair. The speaker had at present one case under his care that was put up in two lateral splints at the Receiving Hospital at the time of injury, causing excruciating pain by pressure. Removal of these splints gave immediate relief. The injury consisted of a fracture of the internal maleolus, rupture of the ligaments and extensive effusion into the synovial sacs. It did very well by soaking in hot water and fixation on a posterior perforated tin splint. Crepitus and pain are indicative of denuded bone; it was found after five and nine weeks on making passive motion. He was astonished that none of the previous speakers had taken into consideration inherited conditions, such as tuberculosis and syphilis, which play a very important role in the diseases of joints. We could hardly expect rapid restoration to cartilage and synovial membrane in subjects whose blood and histological elements are in a state of partial physiological exhaustion. Passive motion in such cases, which, by the way, constitute the majority, cannot be undertaken for a long time; even six months or longer would certainly prove very disastrous to the joint.

DR. KENYON, in replying, said he would not presume to revolutionize the practice of the profession in San Francisco. He believed, however, that passive motion in traumatic cases was entirely unnecessary. He also believed the time would come when prominent surgeons will advocate the absolute rest treatment, Hip joints have been destroyed by the illusive value of passive motion. The patient's judgment in the use of passive motion exceeds that of any surgeon.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, February 16, 1895.

The President, WM. WATT KERR, M.D., in the Chair.

Fracture of the Spine—Laminectomy.—DR. J. F. MORSE exhibited some specimens of fracture of the spinal column, and spoke at length regarding the operation of laminectomy. He said: Where laminectomy is performed for the relief of pressure resulting from a growth the results have in many instances been successful, but when performed for an injury, as a blow or gunshot wound, the results are as a rule unsuccessful; not that the operation should not be made in some cases, but in a great majority the results have proven unsatisfactory. I had intended to quote at length from Gregg Smith, who published a very able article on this subject in the *British Medical Journal* of June and July, 1894. He inveighs against the operation, and says that it should be confined almost exclusively to the lower dorsal and lumbar regions. Kraske's operation for the removal of cancerous growths of the uterus and rectum can be included in this list. Drs. Ransom and Thompson (*British Medical Journal*, February 24, 1894) report a case of tumor of the spinal dura mater where the operation of laminectomy was performed, four laminæ being removed. The tumor was found to be extra dural. The patient died on the third day, and no evidence of healing was present. At the Eleventh International Medical Congress Dr. A. Caselli, of Genoa, read a paper on temporary resection of the posterior vertebral arches as an explorative and curative method in various cases of injury to the meninges and cord. He thus proposes the operation of temporary laminectomy, and his experiments have proved that perfect union took place after the operation without the production of deforming callus or the intercurrence of any complicating accidents. He (Caselli) also reported a case of resection of the third, fourth and fifth dorsal vertebræ for the relief of paraplegia caused by slow compression of the cord from exostosis and pachymeningitis; the exostosis was removed and the patient made a perfect recovery. He also devised a special rachitome for this operation. In conclusion, the speaker said: The cases from whom the specimens exhibited were taken came under his care at the German Hospital last year. Briefly reported, they were as follows: *Case 1*, Male—Fell down a flight of stairs and sustained a fracture of the spinal column in the upper dorsal region, involving the first and second dorsal vertebræ. There was incontinence of urine and feces, paraplegia, and, in fact, all the accompanying signs. An operation was suggested, but the patient refused, and in a short time died. *Case 2*, Male—Gunshot wound of the vertebral column involving the ninth dorsal; paraplegia was present with high temperature. An incision was made alongside the spine and some splinters of bone and the bullet, which was in the spinal canal, were removed. The cord, however, was found to be severed. The man died. *Case 3*, Male—Fell from a house and fractured the spinal column at the tenth dorsal vertebra. The usual symptoms were present. A long incision was made and several fragments of bone were removed, and it was thought that all pressure had been removed, but there was no improvement. The healing was perfect and no inflammation of the cord appeared. Finally, after several months, bed sores supervened, the man went to the City and County Hospital and there died. *Case 4*—Was that of a man who, while pruning a tree, fell, striking upon his buttocks, and fractured the eighth dorsal vertebra. The patient was operated upon in the same manner as *Case 3*. The wound healed perfectly, but there was no relief from the paralysis; otherwise the patient did well until bed sores set in, after which the patient left the hospital and all traces of him had been lost. These cases are of especial interest, particularly Case 3, where there was a fracture posteriorly of the arch and through the body of the vertebra, with pressure on the cord anteriorly, thus showing the futility of a posterior operation. The report of these cases had been prompted by the reading of a paper by Dr. Stanley Stillman not long since, and the report of a case operated upon by a noted surgeon of this city some six or seven years ago, and published in the OCCIDENTAL MEDICAL TIMES of October, 1894. In this case the cord had been pressed upon for more than a year, and a return of feeling and motion occurred within a day or so after the operation. This is indeed wonderful, and when we consider the site of the operation, the atlas and axis, the two most important vertebræ of the spinal column, and the removal of large segments of these bones, the result is still more wonderful. The patient died shortly after the operation. If we are to believe Gregg Smith, we should never go above the upper dorsal region in operating unless for growths, never for traumatism. Of course, in cases of gunshot wound the removal of debris from the wound in a general surgical manner is permissible.

THE PRESIDENT: I consider this to be a most interesting paper. To my mind, the points to be considered are: at what vertebræ is an operation justifiable, the extent of the injury, and the time elapsing since that injury, and whether or not a degeneration of the cord has taken place.

DR. D. D. CROWLEY: My experience in spinal injuries has been slight, but recently a case in court of spinal concussion came under my observation as an expert witness. It may be possible for blows upon the spinal column to have much the same effect as fractures. One case of partial dislocation of the dorsal vertebræ came under my care about a year and a half ago. The man, while driving a team, had attempted to drive under a heavy beam or bar, endeavoring to clear it by lowering his head; his shoulders, however, were caught, and he felt a "snap" in his back. He was seen after one week and a partial dislocation of the dorsal verterebræ was found; there was partial paralysis of both limbs, no pain, and the spinous processes were quite evident. Recently, in the case of Boogar, in Oakland, the second lumbar vertebra was fractured by a ball which entered the abdomen to the left, and severed the jejunum and left flexure of the colon. Death resulted in 24 hours. Another case was that of a miner who had a heavy weight fall on his shoulder, fracturing and dislocating the last dorsal and first lumbar vertebra. For five or six weeks he was treated in the country and then was removed to Oakland. There was a large bed sore over the sacrum and coccyx. Four or five spinous processes were protruding posteriorly, as in Potts disease; there was incontinence of feces and urine, complete paralysis, and shooting pains. An incision eight inches long was made, and the laminæ removed, but the canal was not opened. In two weeks the wound had united. A plastic operation was performed on the bed sore, and it was a success. After this, there was an increase of weight from 115 to 165 and 180 pounds. There was a slight return of sensation and use of the limbs, the patient being able to support himself in a sort of four-wheeled crutch. In every way, his general health is much better than before the operation.

DR. G. F. SHIELS: This is a very interesting subject, and I agree with Dr. Morse, that the case spoken of, regarding the removal of the atlas and axis, two of the most important vertebræ, was a very remarkable one. These vertebræ are the pressure bearers of the head, and guard the cord, some of the most important centers of which are contained in this region. Many claim that all fractures or dislocations above the fourth vertebræ are followed by instant death, or nearly so, the phrenic nerve being interfered with. If this case was reported correctly, which I doubt, it must go down to posterity as a remarkable one. Relative to the operative procedures, fractures and dislocations of the vertebræ, as a rule, go together and produce injury to the cord, either by laceration or pressure, with a resulting paralysis and its train of symptoms which render life a burden to the patient. We know that nerves have been injured and tend to repair, if given an opportunity, by an operation; take Dr. Crowley's case, for example; the man, though not well, is much better in every way.

DR. G. C. MACDONALD: The question seems to be when to operate and when not to operate, and this, no doubt, depends upon the manner in which the injury has been received. If indirect, as by a fall upon the head, crushing the vertebral arches and bodies, it would be useless to operate. In oblique fractures of the body, the pressure would come on the cord from the front, and operation would be of no avail. Dr. Morse's specimen shows this to perfection, the lower fragment pressing upward against the cord. Where the trouble is from direct violence and the cord is pressed upon from behind, the removal of laminæ and splinters of bone is certainly indicated.

DR. DUDLEY TAIT: I have seen it demonstrated, both here and abroad, that there can be little hope held out from operative procedure, unless we can reach the bodies of the vertebræ. Dr. Morse's cases and specimens are extremely interesting as showing the direction of fracture and pressure. I can certainly indorse his remarks, as statistics prove that unless the operation can be done thoroughly it can do no good. I refer particularly to fractures of the body.

DR. CROWLEY: I still hold that the laminæ may be removed; their removal permits of an examination of the membranes and cord. The pressure may not necessarily be from the fracture of the body; it may be from the arch, and in my case was mainly from that. Regarding the incontinence of urine and feces, I believe the sympathetic system has little to do with it. I have seen fractures of the lower dorsal and upper lumbar vertebræ where absolute control of the urine and feces was present.

THE PRESIDENT: From a physician's standpoint, this is an interesting subject. We have to point out the cases where an operation might relieve the pressure symptoms. I believe the sooner an operation is performed the better, if there is any injury to the laminæ, for the sooner the pressure is removed, the less liability there is to degeneration, as in a long-continued case. We must not expect a full recovery as soon as the pressure is removed. The idea is for relief, even though it be but little. There is in one of my wards at the Hospital a patient who is paraplegic and who has incontinence of urine and feces; the dribbling of urine is not from an overflow, as only an ounce of urine can be drawn from the bladder; this may be due to a contracted bladder. As Dr. Crowley has said, we may make the exploratory operation suggested by Caselli. There would be no danger to life, especially if done in the lower dorsal and lumbar regions. One point spoken of by Dr. Macdonald, regarding direct and indirect blows and fractures from a bending forward or backward of the column, is a scientific and interesting one. It is hard to detect whether a fracture is direct or indirect, and it is usually discovered by *post-mortem* examination. I believe that all operations other than for localized injuries, such as gunshot wounds of spines and laminæ, are not to be recommended; they do no good.

DR. MACDONALD: In the early stage the bladder is always distended; after a time inflammation is set up and contracts the bladder. If the injury is high up in the cord there may be complete control of the bladder, or it may act automatically.

Fracture of Skull.—DR. MACDONALD reported a case of fracture of the skull involving the frontal and parietal bones and the wing of the sphenoid bone, resulting from a kick from a horse. On examination an opening was found, through which the membranes had protruded and ruptured, allowing an escape of brain substance. There were no symptoms to point to any cerebral lesion at all, no paralysis and perfect consciousness. The internal table of the skull was much depressed. He remembered another case occurring while he was in Australia, where a man who had received a large wound on his head became a maniac and was placed in the insane asylum. The wound was probed and a sinus discovered which led to denuded bone. The skull was trephined and the man recovered his faculties.

DR. G. F. SHIELS: This all goes to show the correctness of the stand taken here in the Academy some time ago, that it was wise to operate immediately even in simple fractures of the skull. By trephining we do away with the liability of the depression of the inner table, causing injury to the meninges and brain itself. These cases were evidences of prompt and justifiable operative interference.

Hydrocele of the Round Ligament.—DR. G. F. SHIELS reported a case of a tumor the size of a hen's egg above Poupart's ligament, occurring in a young girl 14 or 15 years old, which turned out to be an extra-peritoneal hydrocele of the round ligament—a very rare condition.

Regular Meeting, March 16, 1895.

The President, W. W. KERR, M.D., in the Chair.

Cases of Abdominal Section.—DR. H. KREUTZMANN demonstrated a number of specimens, three of which had been removed from patients that morning.

Case 1.—A kidney, the size of a cocoanut, and in form a lobulated tumor, removed from a child 2½ years old. About five weeks ago, while examining the child's stomach during an attack of gastritis, a tumor reaching out from under the ribs was palpated and diagnosed as an enlarged spleen, giving exactly that impression. Having been called to some other member of the family about a week ago, the child was reëxamined, the diagnosis of enlarged spleen dismissed, and that of a growth of the left kidney was made, and verified under chloroform narcosis, being corroborated by Dr. Morse. An incision was made over the long axis of the tumor, slightly diverging downward from a line parallel to the arcus costarum; the descending colon was found pushed toward the median line, not running over the tumor. The peritoneum covering the tumor was incised and the latter enucleated. The vessels and ureter were ligated, renal artery and vein, separately; and all bleeding having been arrested the opening behind the peritoneum was closed. The abdominal wound was sutured in the usual way; a running catgut stitch of the peritoneum and an interrupted catgut stitch of muscles and fascia; silk sutures through the skin. *Case 2.*—A solid tumor of the right ovary, the size of a man's head; patient of Dr. Ivancovitch, of Petaluma. She had noticed a tumor in the abdomen for a year past. Was taken severely sick about four weeks ago with acute exudative pleuritis of the right side. When the patient entered the German Hospital she was very weak, pulse small and rapid, respiration frequent and shallow, large hard tumor in abdomen, diagnosticated as ovarian tumor with accompanying ascites, and large exudation in right pleural cavity. Dr. Baum withdrew over three quarts of liquid to relieve respiration, and three days afterward this was repeated for the same reason, and then two days later ovariotomy was performed under great difficulties on account of the very feeble action of the heart. Operation had to be done very rapidly. There were broad adhesions with the abdominal walls and transverse colon, which bled freely, requiring some stitches. The operation was done in less than fifteen minutes. *Case 3.*—Tubo-ovarian tumor, representing a typical case of an infectious inflammatory disease of the uterine appendices. Patient had been under treatment for a long time without permanent benefit. At the operation one side only was removed, the other appearing healthy. Curettement of the uterus and perineorraphy were done at the same time. *Case 4.*—Malignant kystoma ovarii, right side, and small cyst of the left ovary. The malignant tumor had developed under the broad ligament and wall of the pubis; only partial removal could be done. Recovery from operation. *Case 5.*—Two pus tubes and one ovary. The right ovary was left after having been resected. Cause, gonorrhea. *Case 6.*—Double tubo-ovarian tumor of inflammatory, septic origin, with very interesting history. Patient, who had not been well for some time before, was taken very sick about ten months ago with pelvic (tubo-ovárian) inflammation, presenting old inflamatory salpingo-oöphoritis. The usual treatment was followed, patient getting somewhat better. There was then recurrence of the inflammation; a large abscess formed on the left side of the pelvis. The abdomen was opened but closed again, and the abscess opened from the vagina and drained. Patient became free of fever, had a good appetite, and gained in flesh and strength, but the pains did not leave her. The tubo-ovarian tumors could easily be felt, and as she did not care to suffer longer she was subjected to another operation, both ovaries and tubes being removed. The patient has made a good recovery; has left the hospital since, and is doing well in every way. By way of comment, Dr. Kreutzmann said that in his hands simple opening and draining of the tubo-ovarian abscess, either through the vagina or supra-pubic, recommended by some as sufficient to effect a cure, had not given permanently good results. In each case the fever subsided, the patients gained in flesh, and could be readily operated on later. No harm was done by the drainage of the abscess, but the patients are liable to become tired and run away from the doctor. *Case 7.*—A uterus with appendages removed through the vagina. The patient, 34 years of age, had been seen a short time ago by Dr. Franklin B. Petrie. She appeared perfectly healthy, had no pains, and only complained of a slight discharge. A diagnosis of carcinoma was made and corroborated. The remarkable feature was the extent of the disease shown when the uterus was cut open. Recovery was good, though probably auto-intoxication from the bowels occurred. There was a slight rise in temperature, pulse 140 and more for two days, which conditions subsided quickly after the bowels had been freely moved by calomel.

DR. DUDLEY TAIT: There are a number of interesting points in the cases just reported by Dr. Kreutzmann. In the first case, that of the sarcomatous kidney, I think the course pursued by him in operating was the very best one. The patient would very probably recover. As regards the idea of the condition of the tubes and curetting for a gonorrheal pyosalpinx, I think also Dr. Kreutzmann is right, the results are not good. I have never seen either a symptomatic or a pathological cure result from curetting in salpingitis. One case illustrating this occurred under my care. The patient had a gonorrhea, slight urethritis and vaginitis. Abscesses formed in the glands of Bartholini; there was also cystitis, endometritis, and salpingitis. She was taken to the hospital and curetted; the fever and tenderness disappeared. Absolute rest was observed for four weeks, when she was considered out of danger and discharged; at this period both tubes appeared indurated but painless, and there was no discharge from the uterus. Two weeks later, after doing some shopping, she was seized with an attack of acute peritonitis, the tube having undoubtedly ruptured. The abdomen was at once opened and cleaned out, but the patient died on the third day, of general peritonitis. In this case it was not thought best to perform a radical operation, as the patient did so well after the curetting. It was certainly a good one, for the method of the French surgeons who now treat large suppurating pelvic masses by vaginal hysterectomy in preference to the abdominal incision.

DR. G. C. MACDONALD: The case of sarcoma of the kidney is an intensely interesting one. I have read and heard of several cases, and I can only say that I endorse the method of operation through the abdomen, as the other kidney can be examined before the diseased one is removed. Regarding the condition of the tubes after gonorrhea, I think there is too much stress put upon this subject. One medical man says that if a patient once has an attack of gonorrhea she should never marry. There is some virtue in the curette no doubt, as I had a case lately under observation that had had gonorrhea, and had had endometritis, abscess of Bartholini's glands, and other symptoms, nine years previous. There has been no pregnancy since the uterus was enlarged. This patient was curetted at St. Mary's Hospital. and now is in better health than ever before.

DR. J. H. BARBAT: The case spoken of by Dr. Kreutzmann, where the tube ruptured and pus escaped, is interesting to me in that in two cases of mine this happened; in one the pus welled up into the wound. Dry sponging was done and a drain was used; the patient recovered. In this case, as in Dr. Kreutzmann's, I think the abscess was of long standing, and if any bacteria were present they were dead and not capable of setting up a peritonitis, as would certainly result if they were active. At the time I could not conceive how all traces of the pus could be removed by sponging or other methods, and it is reasonable to think that many of the cases of abscesses that are reported as rupturing into the abdomen with no serious results are non-infectious from this fact.

DR. D. W. MONTGOMERY: Two years ago I examined a case of a five-pound sarcomatous tumor removed from the kidney of a lady 40 years old, by Dr. Kreutzmann. This tumor, however, was rather different, as it seemed to grow under the capsule, lifting the kidney on its back, so to speak. The kidney was free from disease, the tubules next to the tumor were deviated and suffered from pressure. It looked much like a sarcomatous degeneration of a fibroid; which one rarely finds in the kidneys. One case of a fetal tumor came under my observation, occurring in the practice of Dr. McNutt. The tumor had not started to grow till twelve years ago. It was found to consist of bone, areolar tissue, mucus, islands of cartilage, and connective tissue, all fetal. The tumor was taken out clear, but grew again in a few weeks, and this later one showed on examination epithelial tissue, mucus and cartilage, with no hair in the tumor but on the outside.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, April 1, 1895.

W. F. CHENEY, M.D., in the Chair.

Resection of the Knee-joint.—DR. C. N. ELLINWOOD presented a case of resection of the knee, showing the final result. The operation was done for subluxation of many years' duration and partial anchylosis. The patient is aged about thirty-five. Access to the joint was gained by means of a curved anterior incision, extending from condyle to condyle around the front of the joint. The patella was removed and the bone section made in the manner described by Fenwick, *i. e.*, with a convex cut through the condyles of the femur and a concave one through the head of the tibia. Primary union was obtained and the leg was placed in a plaster cast, where it remained eight weeks. There was complete bony union and the leg is in good position.

DR. F. J. BAZAN said that the operation was quite successful. The doctor was fortunate in having a case suitable for the operation, the joint not being the seat of an inflammatory process. Generally the operation is done for tubercular disease of the joint, and this greatly complicates the process of healing.

DR. EMMET RIXFORD said the curved bone sections of Fenwick have many advantages over the ordinary transverse plane sections, viz., the cut surfaces would lock so that pegs, drills or nails or bone sutures were not required. In putting on the permanent plaster of Paris dressing, which is used in aseptic cases, there is less liability to disarrange the contact. The only difficulty in making the curved sections is in giving the sections the proper direction laterally, but this difficulty was present in all of the methods of cutting the bones. If the surgeon has not at hand a thin-bladed saw of the Butcher-saw pattern, he can make wedge-shaped bone sections, but with these it is more difficult to secure good approximation.

New Instruments.—DR. ALBERT ABRAMS exhibited a number of instruments recently brought by him from Europe. Among them were Nitze's latest cystoscope, a bladder phantom for demonstration purposes, a new head illuminator, a centrifugal sedimenting apparatus and a circular saw (his own device) for removing the calvarium in *post-mortem* examinations.

Regular Meeting May 6, 1895.

GEO. B. SOMERS, M.D., in the Chair.

DR. A. G. ROSENTHAL read a translation of a paper by F. KAREWSKI, in the *Archiv. f. klinische Chirurgie*, entitled "A Contribution to our Knowledge of Tumors of the Tunica Vaginalis and of the Spermatic Cord."

DR. C. F. GRIFFIN read a paper entitled "The Possible Nature of the Syphilitic Poisons."

DR. L. C. LANE said he had listened to the paper with unusual interest. It was in the same line of reasoning as that pursued by the late Dr. Blake, who tried to show that the physiological action of certain drugs was due to their particular chemical composition, and depended on their atomic weights. In reference to the effect of drugs on syphilitic new formations he described some experiments made in a laboratory in Germany, where albumin was coagulated by boiling, and cut into cubes and soaked for 24 hours in water, in which a little calomel was suspended, At the end of 24 hours the sharp edges of the cubes were worn away, showing the destructive action of mercury on albuminoids.

DR. R. L. RIGDON said Dr. Griffin's theory is peculiarly his own. He holds that the chancre is due to the syphilitic toxine alone, that the secondary lesions are due to mixed infection, and that the tertiary lesions are produced altogether by the toxine in an altered state. For infection, one must take the secretion containing the original poison which limits the time within which the disease can be transmitted.

Dr. Geo. B. Somers said he had a case which he had hoped to present to the Society for diagnosis. The patient was a laborer, 50 years of age. A chisel, on being struck with a sledge, flew and struck him on the hairy scalp, inflicting an apparently trivial wound. He was not knocked down nor rendered unconscious. On the fourth day in the middle of the night he was awakened by a rush of blood into the mouth. A large amount of blood was lost, for on the next day, at the office, he was pale and anemic. Examination of the nose and pharynx showed nothing. The hemorrhage occurred two or three times in 24 hours in the office. In the roof of the mouth to the left of the median line there was a small excavation not larger than the head of a pin. He was inclined to explain the hemorrhage from this situation by assuming that the chisel had fractured the skull so as to obliterate the longitudinal sinus and the foramen cecum remaining open as in the child, direct connection might be maintained between the veins of the palate and those of the nose and anterior brain. The hemorrhage was venous in character.

OBITUARY.

T. J. LE TOURNEUX, M.D.

At the grave, the last milestone in the journey of life, the living pause, and, inspired by kindred sympathies, they ask, How has it fared with him whose journey is here ended? Have favoring winds, bright skies, fair landscapes, the sympathy of men and the love of friends attended his journey hitherward, or has the way been gloomy, the obstacles many, and the disappointments great? As the solemn words, "dust to dust," mingle with the sounds of earth upon the bier, our hearts are oppressed by the shadows of the unknowable, and we turn from the pall and shroud, the narrow house, and the mystery of death, to listen to the story of the life that is done. Was life given to idleness and self-indulgence, to retreat from duty, to weakness in peril, disloyalty to friends, or was it brave and manly, full of generous deeds, replete with heroic effort—a struggle for the right, dutiful, honest, victorious? If a life of usefulness, of conduct above reproach, of fidelity to friends, strict integrity, laborious effort and patience in affliction are virtues worthy of the laurel wreath, we may lay the chaplet upon the grave of Dr. Le Tourneux. In disposition he was modest and retiring, his manners and bearing were dignified and gentlemanly. He was a physician in the highest sense. He did not practice his profession for money, but for the love of a noble work and for the benefit of those who placed their lives in his keeping. He was kind and respectful to his compeers and guarded a judicious silence toward the unworthy. At the bedside, his was a calm intelligence, quick to perceive, ready to do, gentle and sympathetic. In the last year of his life he was almost, if not totally, blind. It was pathetic to behold this heroic man, pursuing his professional duties, suppressing under a calm exterior the agony occasioned by this distressful misfortune. Once only was his sorrow visibly manifested. On a spring morning he stood at an open window; the light of a perfect day fell upon eyes that perceived it not. He was evidently listening to the feathered songsters that without warbled in harmonious symphonies their gratitude to nature. His wife approached and pictured to him in glowing terms the beauties of the scene. As she proceeded, he turned away and broke forth in an agony of tears. His last illness was characterized by heroic resignation of what he regarded from the first as inevitable. He declined an operation for two days, for appendicitis, and only yielded to satisfy his friends and medical advisers. It was then believed to be too late, but was, nevertheless, made, as a forlorn hope. He maintained to the end his calmness and composure. He gave specific directions as to the arrangement of his affairs, left kind and loving messages for absent friends, and closed his eyes in final sleep, "Like one who wraps the mantle of his couch about him and lies down to pleasant dreams." Dr. Le Tourneux was born in the year 1847, near Montreal, Canada, of French-Canadian parents. His father was a prominent physician of that city. After receiving an academic education, he graduated in pharmacy and opened business as an apothecary in Chicago. In the great fire of that city, he lost all and took up the study of medicine at Rush Medical College. His health failed after a year's study. He came to San Francisco in 1875, and resumed the study of medicine at the Medical College of the Pacific, from which institution he graduated some years later. In 1879 he was appointed resident physician of St. Mary's Hospital, which position he retained for three years. He subsequently opened an office on Geary street, where he remained to within a short time of his death. He was a member of both County and State Medical Societies and was President of the State Board of Examiners for several successive terms. During Governor Waterman's incumbency he was appointed a member of the San Francisco Board of Health. Although a Canadian by birth, Dr. Le Tourneux was an ardent admirer of American institutions and frequently expressed his regret that he had not been born under the stars and stripes. Dr. Le Tourneux's immediate family consists of his widow, and a mother and several sisters, at present in Chicago. W. S. T.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held May 7, 1895, the following were granted certificates to practise medicine in this State:

Lee M. Alexander, Fresno; Med. Dept. Columbian Coll., D.C., Mar. 1,'60.
John M. Armstrong, Los Angeles; Med. Dept. Univ. Mich., June 23,'85.
David Beattie, Santa Clara; Univ. of Toronto, Canada, April 16,'92; Univ. Trinity Coll, Canada, May 6,'92; Coll. Phys. and Surg., Canada, May 31,'92.
Charles E. B. Flagg, U. S. Army; Med Dept. State Univ. of Georgia, Mar. 3,'90.
Julia Hibben Flagg (*nee* Hibben); Med. Coll. of Indiana, Feb. 28,'90.
Wm. G. Frieday, Redlands; Jefferson Med. Coll., Pa., April 3,'89.
Geo. W. Johnston, Los Angeles; Bellevue Hosp. Med. Coll., N. Y., Mar. 1,'72.
M. E. Kohn, San Francisco; Cooper Med. Coll., Cal., Dec. 6,'94.
Wm. A. Lillie, Cucamonga; Bellevue Hosp. Med. Coll., N. Y., Mar. 25,'95.
Byron McIntire, Rocklin; Long Island Coll. Hosp., N. Y., Mar. 13,'90.
Edward Seymour Moulton, Oakland; Med. Dept. Yale Coll., Conn., June 27,'94.
Otto John Muller, San Francisco; Long Island Coll. Hosp., N. Y., Oct. 10,'86.
Solomon C. Page, Hanford; St. Joseph Coll. Phys. and Surg., Mo., Mar. 2,'80; Med. Dept. Univ. Louisville, Ky., Mar. 1,'87.
Joseph Bernard Ross, San Francisco; Univ. of Würzburg, Germany, July 27,'82.
M. Andrea Rossi, San Francisco; Univ. of Naples, Italy, Sept. 15,'82.
Chas. R. Stephens, South Pasadena; Bellevue Hosp. Med. Coll., N. Y., Oct. 1,'74.
Jesse E. Thompson, Placerville; St. Louis Coll. Phys. and Surg., Mo., Mar. 2,'80.
Frederick D. Tyrrell, Sacramento; Bellevue Hosp. Med. Coll., N. Y., Mar. 25,'93.
Sydney Yale Wynne, Redlands; Harvard Med. Coll., Mass., June 27,'94.

CERTIFICATE REFUSED.

H. W. Taggart, Stockton.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army, (Division of the Pacific) from April 20, 1895, to May 20, 1895.

The leave of absence, on account of sickness, granted Major Clarence Ewen, Assistant Surgeon, is extended three months on account of sickness.

Capt. Louis W. Crampton, Assistant Surgeon, will report in person to the President of the Examining Board appointed to meet at Denver, Colo, May 14, 1895, for examination for promotion

The extension of leave of absence, on surgeon's certificate of disability, granted Major Washington Matthews, Surgeon, is further extended four months, on surgeon's certificate of disability.

Capt. Richard W. Johnson, Assistant Surgeon, is relieved from duty at Washington Barracks, D.C., and ordered to Fort Huachuca, Arizona, for duty, relieving Major Timothy E. Wilcox, Surgeon. Major Wilcox, on being thus relieved, is ordered to Fort Schuyler, N. Y., for duty.

Leave of absence for twenty days, to take effect on or about the 27th instant, is granted Lieutenant Colonel Johnson V. D. Middleton, Deputy Surgeon General. Par. 1, S. O. 52, Dept. of the Columbia, April 20, 1895.

First Lieutenant William E. Purviance, Assistant Surgeon, will proceed to Fort Spokane, Wash., as witness before a general court-martial appointed to meet at that post on the 22d inst. When notified by the court that his presence is no longer required, Assistant Surgeon Purviance will return to Fort Sherman, Idaho. Par. 1, S. O. 53, Dept. of the Columbia, April 17, 1895.

First Lieutenant Charles E. B. Flagg, Assistant Surgeon, has been assigned to duty with Troop I. 4th Cavalry, at Sequoia National Park. S. O. 58, Dept. of Cal., May 2 1895.

Captain Ogden Rafferty, Assistant Surgeon, has been assigned to duty with Troop K, 4th Cavalry, at Yosemite National Park. S. O. 58, Dept. of Cal., May 2, 1895.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from April 20, 1895 to May 20, 1895.

Past Assistant Surgeon J. O. Cobb granted leave of absence for fourteen days. May 1, 1895.

Official List of Changes in the Medical Corps U. S. Navy (Pacific Station) from April 20, 1895, to May 20, 1895.

C. P Bagg, Assistant Surgeon, detached from U. S. Naval Hospital, Mare Island, Cal., and ordered to U. S coast defence steamer "Monterey."

Chas. P. Kindleberger, Assistant Surgeon, from Naval Laboratory, New York, and to U. S. steamer "Olympia."

C. H. T. Lowndes, Past Assistant Surgeon, from U. S. coast defence steamer "Hassler," and to U. S. Naval Hospital, Mare Island, Cal.

ITEMS.

Dr. H. E. Heydecker has removed from Coronado, Cal., to Riverside, Cal.

Dr. A. E. Brune has removed his office from 8 Ellis street to 1104 Market street, San Francisco, Cal.

Dr. A. K. Hapersberger has removed from 1104 Market street to 21½ Third Street San Francisco, Cal.

Errata.—The following errors occurred in our report of the proceedings of the meeting of the State Society in Dr. Kuhlman's remarks on Dr. Wythe's paper. They were due to the fact that the transcript was presumed to have been revised by Dr. Kuhlman, which was not the case. On page 293, lines 54 and 56, for Reddy read Redi; on line 57, for 1777 read 1746, for Boffeine and Nathaam read Abbé Spallanzani; on line 61, for Heckel read Haeckel; on p. 294, line 3, for Schroder read Schroeder and Deusch; on line 5, for Hillensleck read Leuwenhock; on line 9, for Reddy read Redi; on line 11, for Sleyden read Schleiden; on line 13, for Berghow read Virchow.